FOURTH EDITION

Highlights, Facts & Figures

GOLDEN GATE BRIDGE, HIGHWAY
AND TRANSPORTATION DISTRICT

HIGHLIGHTS, FACTS & FIGURES OF THE GOLDEN GATE BRIDGE, HIGHWAY AND TRANSPORTATION DISTRICT

INTRODUCTION

Welcome to the fourth edition of *Highlights, Facts and Figures.* Since 1937, the Golden Gate Bridge, Highway and Transportation District (District) has served the public interest by operating and maintaining the world-famous Golden Gate Bridge across the entrance to San Francisco Bay. As part of U.S. Highway 101, the Golden Gate Bridge serves as a vital transportation link between the City of San Francisco and the vast Redwood Empire to the north.

These transportation responsibilities were expanded by the California State Legislature in 1969 to include the operation of safe, efficient and cost-effective public transit in the Golden Gate Corridor, north of San Francisco. Since 1970, Golden Gate Transit has provided a viable alternative to the automobile while contributing to the protection of our environment.

This document chronicles the challenges faced by the District as it has fulfilled its public trust in representing the citizens of six counties, and responding to the needs of an entire region.

THE DISTRICT TODAY

Based in San Francisco, the District consists of three operating divisions, Bridge, Bus and Ferry, and an administrative District Division. Overseeing more than 900 employees who work together in the public interest, the General Manager coordinates the operations of all divisions according to the policy and direction of the District Board of Directors. The District Board of Directors consists of 19 members representing the six member counties: San Francisco, Marin, Sonoma, Del Norte and parts of Mendocino and Napa counties. (See page 58 for more information on Board of Directors.) Over 41 million vehicles cross the Golden Gate Bridge annually and 11 million customers ride Golden Gate Transit each year.

Golden Gate Larkspur Ferry Terminal.

THE MISSION

The mission of the District is to provide a safe, efficient, reliable means for the movement of people, goods, and services within the Highway 101, Golden Gate Corridor. In carrying out this mission the District operates and maintains the Golden Gate Bridge in a structurally sound condition, provides public transit services including bus and ferry systems, and carries out its activities in a cost-effective, fiscally responsible manner. Further, the District recognizes its responsibility to work as a partner with federal, state, regional, and local governments and agencies to best meet the transportation needs of the people, communities, and businesses of San Francisco and the North Bay areas. The District contributes to the protection of the environment by working with other public agencies in providing attractive, efficient regional public transit services as an alternate to the automobile, and encouraging the use of such services.

Since 1937, the District has been successful in fulfilling its primary mission: maintaining and operating an historic, man-made wonder of the world — a magnificent Bridge spanning the Golden Gate at the entrance to San Francisco Bay. This ambitious mission was expanded in 1969 by the California State Legislature to encompass an equally important vision set forth by the people of San Francisco and the North Bay, to include what many today consider an even greater challenge: providing efficient, cost-effective public transportation in the Highway 101 Corridor.

With the mandate from the California State Legislature to enter the public transit business, the District planned, developed, and implemented what is today a nationally renowned bus and ferry system. The District is also unique among Bay Area transit operations because it provides transit services without support from local sales tax measures or dedicated general funds. As the District does not have the authority to levy taxes, the use of surplus Bridge toll revenue is the only available local means the District has to support the District's transbay transit services. Presently, Golden Gate Transit bus and ferry operations are funded approximately 50 percent by surplus Golden Gate Bridge tolls and 30 percent by transit fares. The remainder is met by federal and state subsidies.

Right: One of the unique features of the Golden Gate Bridge is the arch over historic Fort Point, located at the south end of the Bridge. ***Painting by Chesley Bonestell***

TIPS FOR VISITORS

The Bridge can be a very busy place, particularly during the summer months. It is estimated that over ten million people visit each year.

WEATHER

The climate is temperate marine and generally mild year-round. Daytime temperatures range from 40 degrees in the winter, to 75 degrees in the summer. Morning and evening fog can roll in during the spring and summer but often burns off by midday. The best months to visit the Bridge are generally September and October.

VISTAS & PARKING

There are two main vista points located at the Bridge. One on the northeast side and the other is on the southeast side. Parking is available at both sites including parking spaces for persons with disabilities. Our neighbor to the north and south, the Golden Gate National Recreation Area, offers additional viewing areas.

PEDESTRIAN SIDEWALK HOURS

Visitors to the Golden Gate Bridge may access the east sidewalk, near the Strauss statue and the East Parking Lot, from 5:00 a.m. to 9:00 p.m. seven days a week. No roller blades, skateboards or roller skates are allowed.

BICYCLE ACCESS

Bicyclists are permitted as follows:

East Sidewalk, weekdays 5:00 a.m. to 3:30 p.m.

West Sidewalk, weekdays 3:30 p.m. to 9:00 p.m.

West Sidewalk, weekends/holidays 5:00 a.m. to 9:00 p.m.

East Sidewalk, every day 9:00 p.m. to 5 a.m.

DIRECTIONS TO THE EAST PARKING LOT

To access the East Parking Lot: Traveling northbound, take the last San Francisco northbound exit off Highway 101 just before the Toll Plaza. Turn left into the East Parking Lot. Traveling southbound, proceed through the far right toll lane #1 (west side). Take an immediate right exiting Highway 101. Make another immediate right onto a roadway that passes underneath the Toll Plaza and directly into the East Parking Lot.

WHAT NOT TO MISS

The following attractions are located on the southeast side of the Golden Gate Bridge Toll Plaza and may be reached most easily by parking in the East Parking Lot.

Joseph B. Strauss Statue

The Joseph B. Strauss statue is a constant reminder to all of the determination it took to build this great structure. The statue represents the District's continued recognition of the man who refused to give up until his vision became a reality.

Main Cable Cross-Section

Adjacent to the Strauss statue is a section of the main cable of the Golden Gate Bridge. The cross-section demonstrates the magnitude of this incredible engineering feat. Various construction statistics are also displayed.

Glorious Golden Gate Gardens

Since the 1960s, the renovated garden areas have been the backdrop showcasing the historic Bridge to visitors from around the world. As visitors step back from the Strauss statue, they are faced with yet another visual treat: the immacu-

late gardens. On less than five acres, the annual and perennial flower beds and manicured hedges accent the brick sidewalks inviting guests to investigate or wander up or down a path to view the Bridge from a different prospective. The gardens have been acclaimed in Joan S. Hockaday's book *The Gardens of San Francisco* and in Pacific Horticulture magazine.

Roundhouse Gift Center

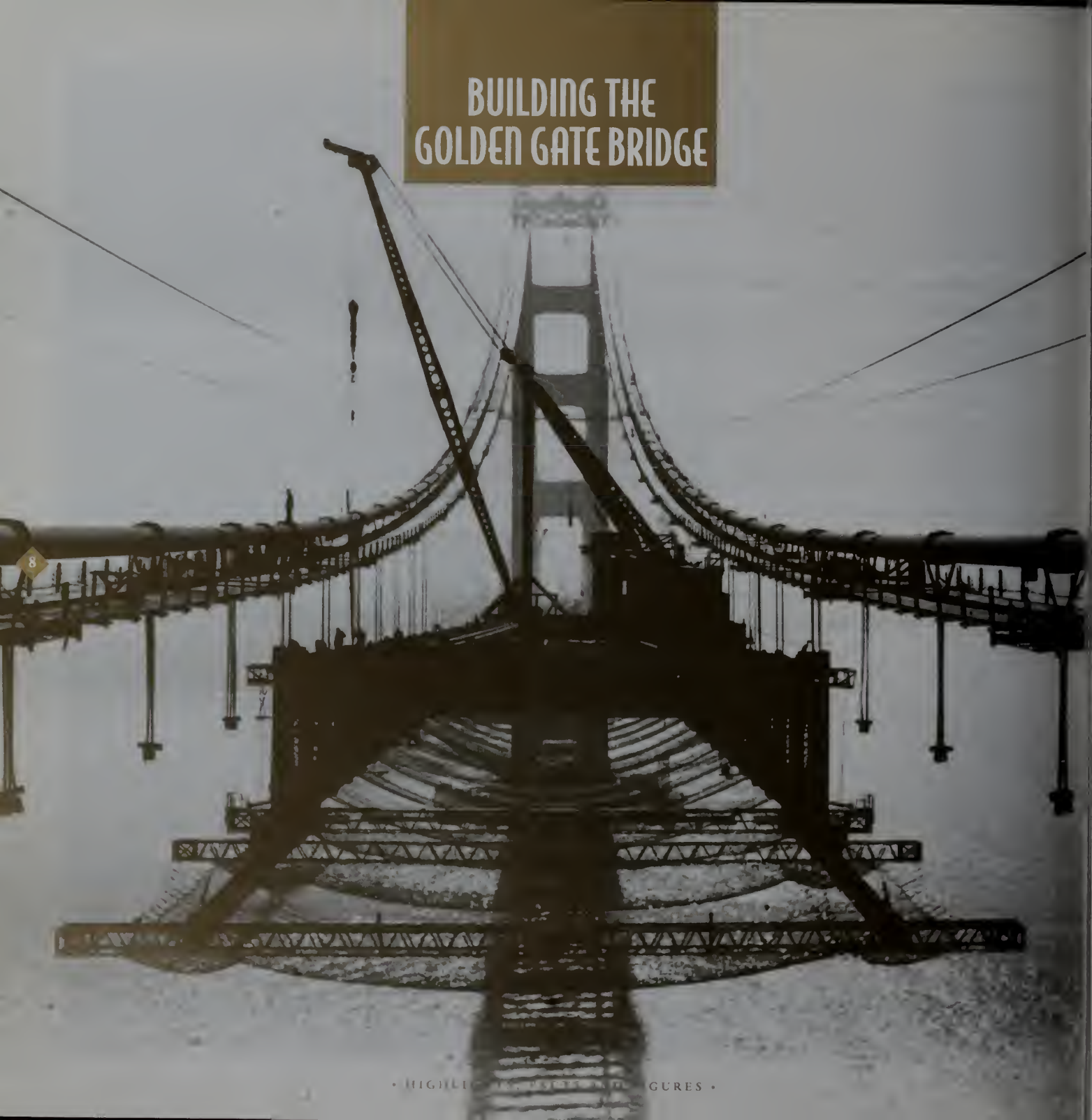
One should not leave the area without a visit to the District's Gift Center located in the historic "Roundhouse" building. Designed in 1938, the Roundhouse was originally a restaurant for passing motorists. In 1973, it became District offices. Then, in 1987, the building was transformed into the Gift Center. Open seven days a week between 9 a.m. and 5 p.m. and 8:30 a.m. to 7:30 p.m. during summer months, the Gift Center offers a variety of information and souvenirs of the Golden Gate Bridge.

Bridge Cafe

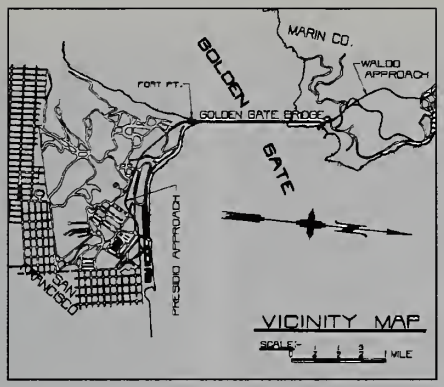
In addition to visiting the Roundhouse Gift Center, visitors may enjoy snacks and beverages available at the Bridge Cafe adjacent to the Strauss statue.

Left: The Joseph B. Strauss statue. Top: The Roundhouse Gift Center today. Above: The Roundhouse restaurant, circa 1945.

BUILDING THE GOLDEN GATE BRIDGE



Railroad entrepreneur Charles Crocker proposed the concept of bridging the vast Golden Gate Strait as early as 1872. It was not until 1916, however, that James Wilkins, newspaper editor of the *San Francisco Call Bulletin* revived the idea of a bridge. He began an editorial campaign for a bridge which caught the attention of San Francisco City Engineer Michael M. O'Shaughnessy. O'Shaughnessy began a national inquiry among engineers regarding the feasibility and cost of such a project. The majority of engineers said a bridge could not be built. Some speculated it would cost over $100 million. However, Joseph Baermann Strauss, a designer of nearly 400 spans, said such a bridge was not only feasible, but could be built for only $25 to $30 million.



Strauss submitted his preliminary sketches to O'Shaughnessy with a cost estimate of $27 million on June 28, 1921. Strauss then dedicated himself to convincing civic leaders that the span was feasible and could pay for itself with tolls alone. He became the believer who organized the political, financial and promotional efforts to build the Bridge.

The time was right to span the Gate. Population centers were growing, and traffic congestion at the ferry docks was

Left: A safety net, the first used in bridge building, was suspended below the span. Above: Construction of Bridge towers as seen from San Francisco.

Placing forms and reinforcing steel in preparation for paving.

Laying cable into one of 61 strands that comprise a main cable.

becoming intolerable. There was no federal or state funding to build the Golden Gate Bridge because the San Francisco-Oakland Bay Bridge, which was being promoted during the same time period, had already received the limited funds available.

The idea of forming a special district to construct the Golden Gate Bridge was proposed in 1922 by O'Shaughnessy, Strauss and Edward Rainey, Secretary to the Mayor of San Francisco. They believed a district was necessary to oversee the financing, design and construction of the Bridge so that all counties affected would have a voice in the proceedings.

To the north in Sonoma County, an historic meeting was called by Franklin Doyle, a local banker, on January 13, 1923. At this mass meeting of representatives from twenty-one counties the "Association of Bridging the Gate" was formed. Working with State Assemblyman Frank L. Coombs of Napa and Marin County attorney George H. Harlan, the Association drafted legislation creating the Bridge District. The "Golden Gate Bridge and Highway District Act" was enacted by the California State Legislature on May 25, 1923. The enabling legislation gave counties the right to organize as a bridge district and borrow money, issue bonds, construct a bridge and collect tolls.

The future of the Bridge was then in the hands of the War Department. Only it could authorize construction. It was the War Department which had jurisdiction over all harbor construction that might affect shipping traffic or military logistics, and which owned the land on either side of the Golden Gate Strait. In the spring of 1924, San Francisco and Marin counties made a joint application for a permit to build the Bridge. The War Department held a

The Golden Gate Strait is the entrance to the San Francisco Bay from the Pacific Ocean. The strait is approximately three-miles long by one-mile wide with currents ranging from 4.5 to 7.5 knots. It is generally accepted that the strait was named "Chrysopylae" or Golden Gate by John C. Fremont, Captain, Topographical Engineers of the U.S. Army circa 1846. It reminded him of a harbor in Istanbul named Chrysoceras or Golden Horn.

hearing on May 16, 1924 to discuss two issues: would the Bridge hinder navigation and was adequate financing available. Because of overwhelming testimony in favor of the Bridge project, Secretary of War John W. Weeks issued a provisional permit on December 20, 1924.

Strong opposition to spanning the strait emerged from well-financed special interests, particularly ferry companies. An aggressive campaign was launched to stop construction of the Bridge and the formation of the district. However, proponents of the Bridge prevailed. On December 4, 1928, the Golden Gate Bridge and Highway District was formed to design, construct and finance the Golden Gate Bridge. The District consists of San Francisco, Marin, Sonoma, Del Norte and parts of Mendocino and Napa counties. The Boards of Supervisors of the District counties appointed directors to the Bridge Board and they held their first meeting on January 23, 1929.

Eleven of the nation's leading bridge engineering firms submitted proposals for the span. Joseph B. Strauss was selected on August 15, 1929 as Chief Engineer. Leon S. Moisseiff, O.H. Amman and Charles Derleth, Jr. were named Consulting Engineers. On August 11, 1930, the War Department issued its final permit for the construction of a 4200-foot main span with a vertical clearance of 220 feet at mid-span. On August 27, 1930, Strauss submitted final plans to the Golden Gate Bridge District Board.

On November 4, 1930, voters within the District went to the polls and put up their homes, their farms and their busi-

Bridge roadway being assembled in sections and attached to suspender ropes.

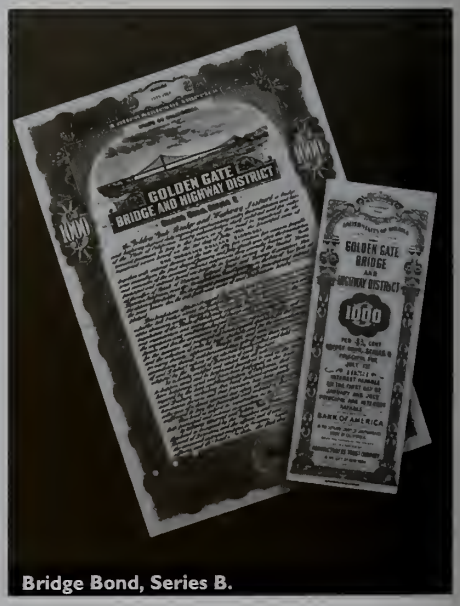
ness properties to support a $35 million bond issue to finance the building of the Bridge. For some, the timing of the bond election was considered economically reckless as it would create bonded indebtedness during the Great Depression. Others said Bridge construction represented the economic relief needed from the Great Depression. After the vote, it was clear the people believed in Strauss' vision. 145,057 people voted for the bond issue; 46,954 voted against it.


Joseph Baermann Strauss

In November 1932, contracts totaling $23,843,905 were awarded for the construction of the Golden Gate Bridge, which commenced on January 5, 1933. During construction, Joseph B. Strauss insisted on the use of the most rigorous safety precautions in the history of bridgebuilding. Edward W. Bullard, a local manufacturer of safety equipment, designed protective headgear that Strauss insisted be worn on the job. This was a prototype of the hard hat, worn for the first time ever along with glare-free goggles. Special hand and face cream protected against the wind, while special diets helped fight dizziness. The most conspicuous precaution was the safety net, suspended under the floor of the Bridge from end to end. During construction, the net saved the lives of nineteen men who became known as the "Half-Way-to-Hell Club." Until February 17, 1937, there had been only one fatality, setting a new all-time record in a field where one man killed for every million dollars spent had been the norm. On February 17, ten men lost their lives when a section of scaffold carrying twelve men fell through the safety net.

The Bridge was completed and opened to pedestrian traffic on May 27, 1937. The following day it was opened to


Foot bridge erected prior to main cable construction.



Bridge Bond, Series B.

vehicular traffic. The last of the construction bonds were retired in 1971, with $35 million in principal and nearly $39 million in interest being financed entirely from Bridge tolls.

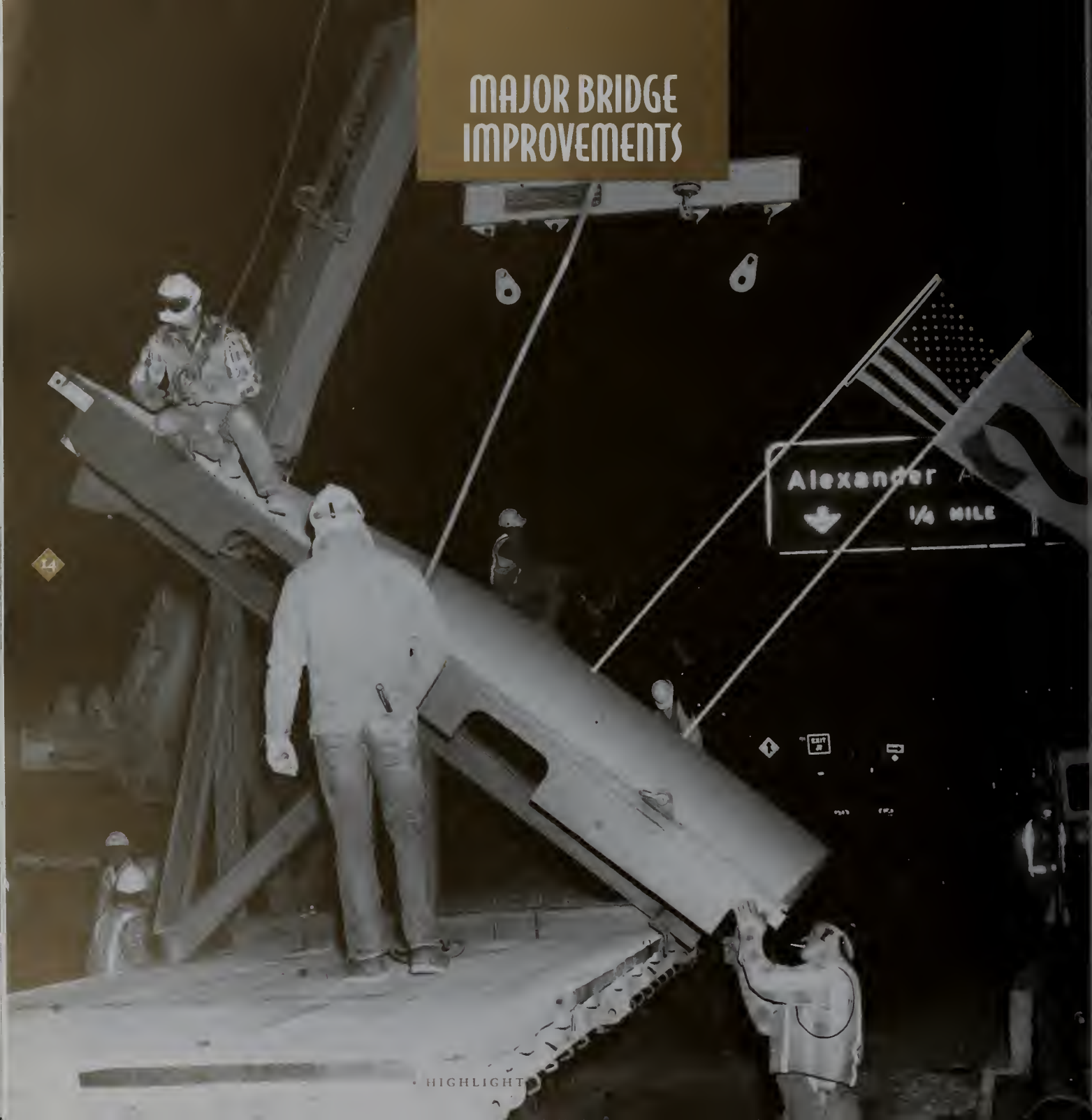
The Chief Engineer of the Golden Gate Bridge, Joseph B. Strauss, with the assistance of Strauss Engineering (later to become Strauss and Paine, Inc.) Vice Presidents Charles A. Ellis and Clifford E. Paine, Consultant Engineers O.H. Ammann, Charles Derleth, Jr. and Leon S. Moisseiff, Consulting Architects Irving F. Morrow and his wife Gertrude C. Morrow, along with many dedicated workers and professionals, oversaw the creation of a structure which has become world-renowned. The Golden Gate Bridge has earned the reputation as the world's most spectacular Bridge and one of the most visited sites in the world.

This very brief history of the building of the Golden Gate Bridge is based on information available in *The Golden Gate Bridge*, Report of the Chief Engineer 1937 by Joseph B. Strauss and Clifford E. Paine. Other resources include *Spanning the Gate* by Stephen Cassady, *Golden Gate* by Allen Brown and *The Gate* by John van der Zee.

Erecting the south tower.

Ironworkers bolt down the suspender cable band to main cable.

MAJOR BRIDGE IMPROVEMENTS



Since its completion in 1937, a number of rehabilitation and improvement projects have been undertaken to preserve, protect and extend the life of the Bridge.

1953-1954 On December 1, 1951, a great windstorm threatened the integrity of the Bridge. The District subsequently added a lower lateral bracing system to significantly increase the stability of the Bridge at a cost of $3.5 million.


Pedestrian railings replaced 1993-1994.

1967-1969 Consulting Engineers from Ammann & Whitney conducted a major inspection of the Bridge.

1973-1976 Corrosion was discovered on the suspender ropes during the 1967-1969 Bridge inspection. The District worked with Ammann & Whitney to develop plans and specifications to replace the suspender ropes. They were replaced at a cost of $9 million in District funds.

1980-1982 Following the 1971 San Fernando Earthquake, the California Department of Transportation (Caltrans) issued new retrofit design standards for existing structures. Both approaches to the Bridge were retrofit to increase earthquake resistance. The project was completed in 1982 with 80 percent of the $2.8 million cost borne by the federal government.

1980-1989 Over the nine year period, all 11 toll collection booths were renovated to more safely accommodate the flow of traffic. The $1.7 million project was funded by the District.

1982-1986 Over the years, salt and moisture from fog and the ocean had penetrated and deteriorated the Bridge roadway deck. In response, the greatest engineering project since the building of the Bridge occurred when the original concrete deck and its supporting steel stringers were replaced with a lighter, stronger, orthotropic steel deck. The District worked with Ammann & Whitney to develop this new deck design. Approximately 80 percent of the total cost of $68.1 million was borne by the Federal Highway Administration as a result of Congressional legislation recognizing the importance of this project in the protection of interstate commerce. The balance was paid by the District.

The replacement work occurred mostly at night to ensure that daytime peak traffic was not affected. A total of 747 deck sections were replaced. The final phase was completed in the summer of 1986 when two inches of epoxy asphalt were laid over the surface of the steel deck roadway. During the replacement, the roadway was widened by two feet resulting in outside lane widths of 11 feet, up from 10 feet. The four inside lanes remain 10 feet wide.

1986-1987 Bridge tower lighting, included in the original Bridge design but not constructed until this time, was installed at a cost of $1.2 million. The project was funded, in part, through a donation from Pacific Gas & Electric. Further, the lighting was installed, at cost, by Abbett Electric Company.

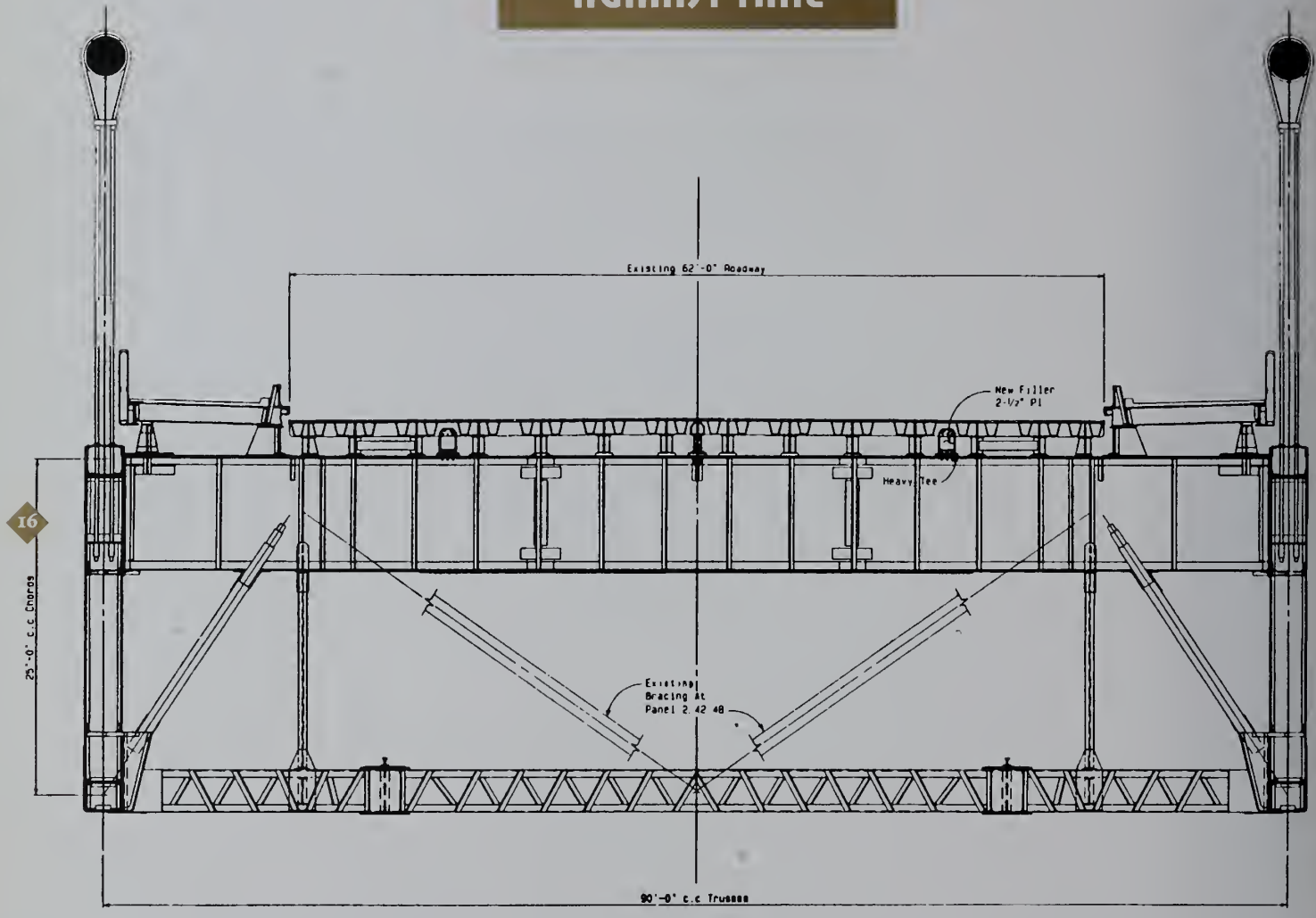
1993-1994 By 1992, after 55 years of constant weather exposure, approximately 6,557 lineal feet of west side pedestrian railing had deteriorated. The District replaced the railing with an exact replica at a cost of $1.3 million.

1996-1997 In August 1996, pavement and drainage rehabilitation of the roadway in the Toll Plaza area commenced. To maintain the smooth flow of traffic during peak periods, work was performed at night. The project was completed in early 1997.

1997 The first phase of seismic retrofit construction began on the north approach to the Golden Gate Bridge. See page 17 for more on the seismic retrofit project.

Left: The final roadway section is lowered into place, 1986.

A RACE AGAINST TIME



SUSPENSION BRIDGE
DECK RETROFIT

THE EARTHQUAKE CHALLENGE

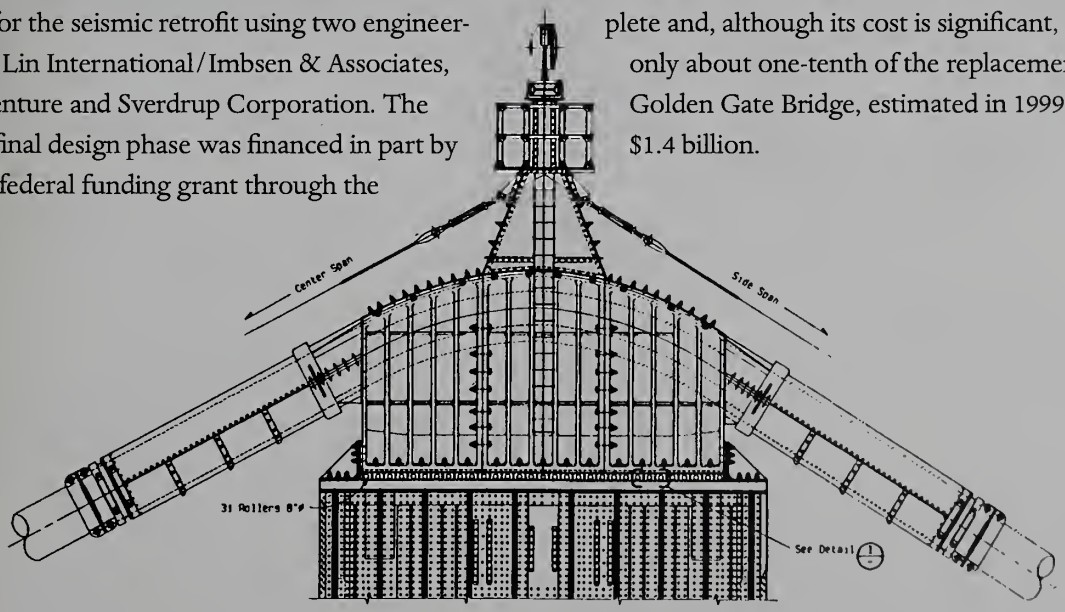
Although built before the advent of modern seismic engineering, the Golden Gate Bridge has performed well in all earthquakes to date. While the 1989 Loma Prieta Earthquake was no exception, the 7.1 temblor initiated a project which is likely to be the greatest and most significant in the life of the Bridge.

In 1990, the California State Governor's Board of Inquiry on the Loma Prieta Earthquake recommended all transportation structures of importance in California be seismically retrofit. T.Y. Lin International, San Francisco, had just conducted a state-of-the-art seismic evaluation of the Bridge. Although the Golden Gate Bridge has an excellent history of earthquake performance, T.Y. Lin International reported, "It is vulnerable to damage in a Richter magnitude 7 or greater earthquake with an epicenter near the Bridge, and it could be closed for some time after such an earthquake." In response, the District engaged T.Y. Lin International to prepare preliminary retrofit design concepts.

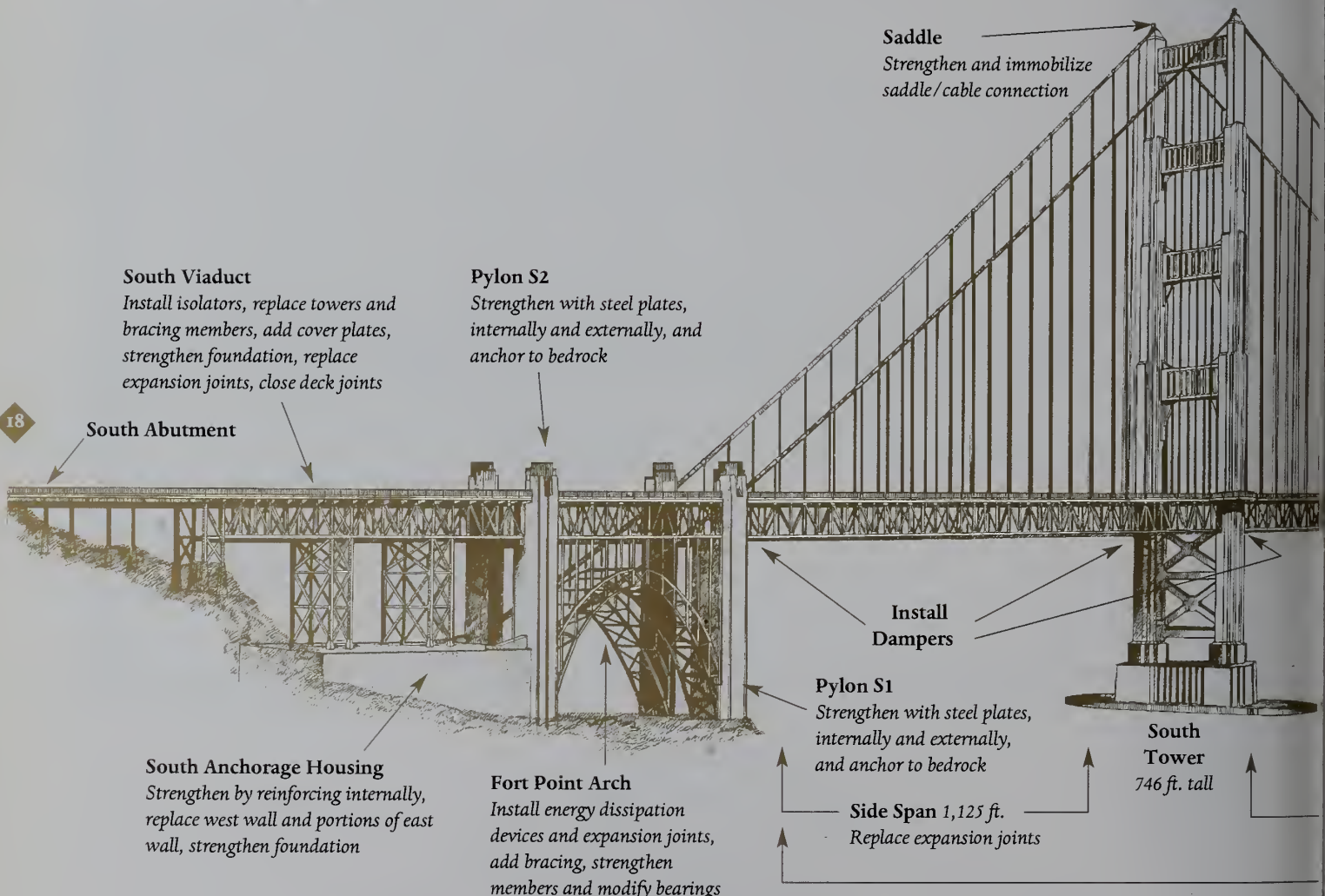
Between 1993 and 1997, the District conducted the final design phase for the seismic retrofit using two engineering firms: T.Y. Lin International/Imbsen & Associates, Inc., a Joint Venture and Sverdrup Corporation. The $14.5 million final design phase was financed in part by a $5.9 million federal funding grant through the Federal Highway Administration. The funding follows an express recognition by the U.S. Congress of the importance and urgency of the project by appropriating funds in the Intermodal Surface Transportation Efficiency Act of 1991. Another $4.9 million was allocated from state funds and the remaining $3.7 million was funded from Bridge tolls.

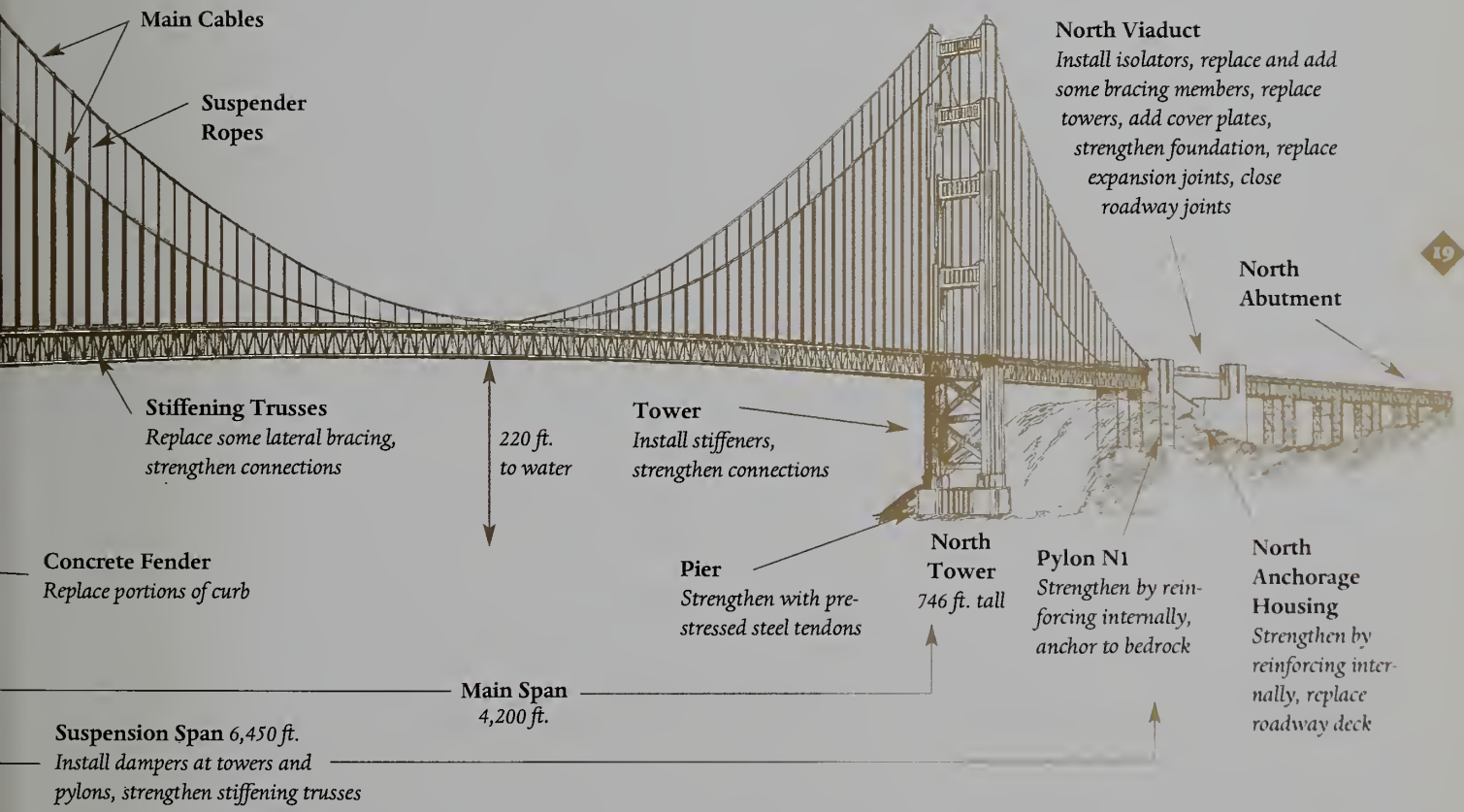
It is estimated the seismic retrofit construction phase will cost $217.6 million (1999 dollars). In 1991, the District began raising 20 percent of the funds needed for construction from Bridge toll revenue, representing a "local match" toward construction (see "Why is there a $3.00 toll?" on page 37). By January 1, 1999, $43.5 million of the "local match" had been placed in restricted reserves for the project. It is anticipated that the remaining 80 percent of the funds will come from the federal government. As of January 1, 1999, the federal government had contributed $56.8 million toward the project. Although this federal contribution is significant, full federal funding will require an additional $117.3 million in federal assistance.

Construction will take approximately five years to complete and, although its cost is significant, it represents only about one-tenth of the replacement cost of the Golden Gate Bridge, estimated in 1999 dollars to be $1.4 billion.



PROPOSED SEISMIC RETROFIT MEASURES




Main Cables
Suspender Ropes
North Viaduct
Install isolators, replace and add some bracing members, replace towers, add cover plates, strengthen foundation, replace expansion joints, close roadway joints
19
North Abutment
Stiffening Trusses
Replace some lateral bracing, strengthen connections
220 ft. to water
Tower
Install stiffeners, strengthen connections
Concrete Fender
Replace portions of curb
Pier
Strengthen with pre-stressed steel tendons
North Tower
746 ft. tall
Pylon N1
Strengthen by reinforcing internally, anchor to bedrock
North Anchorage Housing
Strengthen by reinforcing internally, replace roadway deck
Main Span
4,200 ft.
Suspension Span 6,450 ft.
Install dampers at towers and pylons, strengthen stiffening trusses

GOLDEN GATE BRIDGE STATISTICS

BRIDGE

Total length of Bridge including approaches	1.7 miles	8,981 ft	2,737 m
Length of suspension span including main span and side spans	1.2 miles	6,450 ft	1,966 m
Length of main span portion of suspended structure		4,200 ft	1,280 m
Length of one side span		1,125 ft	343 m
Width of Bridge		90 ft	27 m
Width of roadway between curbs		62 ft	19 m
Width of sidewalk		10 ft	3 m
Clearance above mean high water		220 ft	67 m
Deepest foundation below mean low water		110 ft	34 m
Total weight of each anchorage	60,000 tons		109,000,000 kg
Total weight of Bridge, anchorages, and approaches (1937)	894,500 tons		811,500,000 kg
Total weight of Bridge, anchorages and approaches (1986)*	887,000 tons		804,700,000 kg
Weight of Bridge not including anchorages and approaches and including suspended structure, towers, piers and fenders, bottom lateral system and orthotropic redecking (1986)*	419,800 tons		380,800,000 kg
Live load capacity per lineal foot	4,000 lbs.		1814.14 kg
Maximum transverse deflection at center span	27.7 ft		8.4 m
Maximum downward defection at center span	10.8 ft		3.3 m
Maximum upward deflection at center span	5.8 ft		1.8 m

Concrete Quantities *(approx.)*	*cubic yards*	*cubic meters*
San Francisco Pier & Fender	130,000	99,400
Marin Pier	23,500	18,000
Anchorages, Pylons, and Cable Housing	182,000	139,160
Approaches	28,500	21,800

*The total bridge weight listed for 1986 includes the reduction in weight due to the redecking in 1986. The weight of the original reinforced concrete deck and its supporting stringers was 166,397 tons (150,952,000 kg). The weight of the new orthotropic steel plate deck, its two inches of epoxy asphalt surfacing, and its supporting pedestals is 154,093 tons (139,790,700 kg). This is a total reduction in weight of the deck of 12,300 tons (11,158,400 kg), or 1.37 tons (1133 kg) per lineal foot of deck.

Structural Steel Quantities		
Main towers	44,400 tons	40,280,000 kg
Suspended structure	24,000 tons	21,772,000 kg
Anchorages	4,400 tons	3,991,000 kg
Approaches	10,200 tons	9,250,000 kg

TOWERS

Height of towers above water	746 ft	227 m
Height of towers above roadway	500 ft	152 m
Base dimension (each leg)	33 ft x 54 ft	10 m x 16 m
Load on each tower from cables	61,500 tons	56,000,000 kg
Weight of the two towers	44,400 tons	40,200,000 kg
Transverse deflection of towers	12.5 in	0.32 m
Longitudinal deflection of towers shoreward	22 in	0.56 m
Longitudinal deflection of towers channelward	18 in	0.46 m

MAIN CABLES

Diameter of cables includes wrapping	36 3/8 in	.92 m
Length of one cable	7,650 ft	2,332 m
Total length of wire used	80,000 mi	129,000 km
Number of wires on each cable		27,572
Number of strands in each cable		61
Weight of main cables, suspender cables & accessories	24,500 tons	22,200,000 kg

VEHICLE CROSSINGS

(Fiscal Year 1997/98, ending June 30, 1998)

Total annual vehicle crossings (north & southbound)	41,381,800
Monthly average (north & southbound)	3,448,490
Weekday average (north & southbound)	117,770
Weekend/holiday average (north & southbound)	103,000
Average AM southbound peak (6 a.m. – 10 a.m.)	21,080
Average PM southbound peak (4 p.m. – 6 p.m.)	6,516
Average daily carpools (6:00 a.m. – 10:00 a.m.)	3,400
Total vehicle crossings since opening (as of November 30, 1998)	1,578,652,981

TOLL REVENUE

(Fiscal Year 1997/98, ending June 30, 1998)

Annual toll revenue	$58,124,000
Average monthly toll revenue	$4,843,666
Average daily toll revenue	$159,244
Total toll revenue since opening (as of November 30, 1998)	$973,775,481

SIGHTS AND SOUNDS

Acclaimed as one of the world's most beautiful bridges, there are many different elements to the Golden Gate which make it unique. With its tremendous towers, sweeping cables and great span, the Bridge is a sensory beauty featuring color, sound and light.

ART DECO THEME

The original plans submitted by Chief Engineer Joseph B. Strauss called for a hybrid cantilever and suspension structure across the Golden Gate. This plan was generally regarded as unsightly, and a far cry from the elegant, understated lines that define the Bridge today. After Strauss submitted his first design, Consulting Engineer Leon S. Moisseiff theorized that a long span suspension bridge could cross the Gate. A suspension structure of this length had never been tried before.

Even after Moisseiff and Strauss began to refine the new design, it wasn't until Consulting Architects Irving F. Morrow and his wife Gertrude C. Morrow joined the project that the art deco styling began to take shape. The Morrows added the consistent, yet subtle art deco elements which now embody the Bridge. They simplified the pedestrian railings to modest, uniform posts placed far enough apart to allow motorists an unobstructed view. The light posts took on a lean, angled form. Wide, vertical ribbing was added on the horizontal tower bracing to accent the sun's light on the structure. The rectangular tower portals themselves decrease on ascent, further emphasizing the tower height. These architectural enhancements define the Golden Gate Bridge's art deco form. It is this form which is known and admired the world over.

LIGHTING THE BRIDGE

Consulting Architect Irving F. Morrow wrote *Report on Color and Lighting* to Chief Engineer Joseph B. Strauss on April 6, 1935. In his report, he indicated that he two most important factors in lighting the Golden Gate Bridge are: 1) The enormous size of the project; and, 2) The tremendous scale and dignity of the project. Morrow carefully weighed these considerations as he designed his lighting scheme, one which would even further accent the uniqueness of the Golden Gate Bridge.

Because of the Bridge's great size, Morrow did not want the same intensity of light on all of its parts. The effect would seem too artificial. The towers, for example, were to have less light at the top so they would seem to soar beyond the range of illumination. Further, because of the scale and dignity of the Bridge, Morrow believed tricky, flashy or spectacular lighting would be unworthy of the structure's magnificence. Thus, he selected low pressure sodium vapor lamps with a subtle amber glow for the roadway, providing warm, non-glare lighting for passing motorists. The lamps were the most modern available in 1937.

Forty-five years later, the original low pressure sodium

Lamp posts accent the tower's art deco styling.

Left: The towers define the Bridge's art deco motif.

roadway lights were replaced with high-pressure sodium vapor lamps. These modern lamps provide improved lighting at a lower cost. To preserve the original warm glow, the new lampheads have a plastic amber lens. One of the original lamps is still burning at the Bridge behind the Roundhouse Gift Center just east of the Toll Plaza.

The tower lighting, as originally envisioned by Morrow, was not installed during the construction of the Bridge due to budgetary constraints. However, in 1987, shortly after the 50th Anniversary, the Bridge towers came to life with light on June 22, 1987. Just as Morrow had envisioned, the new lighting made the towers seem to disappear into the evening darkness, further accenting their great height. The tower lighting was installed at a cost of nearly $1.2 million, funded, in part, through a generous grant from Pacific Gas & Electric Company. The lighting was installed by Abbett Electric Company, who under-bid the original construction estimates by nearly $1 million.

INTERNATIONAL ORANGE

The Golden Gate Bridge has always been painted orange vermilion, deemed "International Orange." Rejecting carbon black and steel gray, Morrow selected the color because it blends well with the span's natural setting. If the U.S. Navy had its way, the Bridge might have been painted black and yellow stripes to assure greater visibility for passing ships.

Painting the Bridge is an ongoing task and the primary maintenance job. The Bridge paint protects it from the high salt content in the air which rusts and corrodes the steel components. Many misconceptions exist about how often the Bridge is painted. Some say once every seven years, others say from end to end each year. Actually, the Bridge was painted when it was originally built with a red lead primer and a lead-based topcoat. For the next 27 years, only touch up was required. By 1968, advancing corrosion sparked a program to remove the original paint and replace it with an inorganic zinc silicate primer and vinyl topcoats. The topcoat was changed to acrylic emulsion in 1990 to meet air quality require-

OTHER GREATS	*Main Span Length**		*Opened*
Akashi-Kaikyo Bridge, Japan	6,532 feet	1,991 meters	1998
Great Belt East Bridge, Denmark	5,328 feet	1,624 meters	1997
Humber Bridge,England	4,626 feet	1,410 meters	1981
Jiangyin Yangtze River Bridge, China	4,544 feet	1,385 meters	1999
Tsing Ma Bridge, China	4,518 feet	1,377 meters	1997
Verrazano Narrows, New York	4,260 feet	1,299 meters	1964
Golden Gate Bridge, California	4,200 feet	1,280 meters	1937
High Coast Bridge, Sweden	3,970 feet	1,210 meters	1997
Mackinac Straits Bridge	3,800 feet	1,158 meters	1957
Minami-Bisan-Seto Bridge	3,609 feet	1,100 meters	1988
Second Bosporus, Turkey	3,576 feet	1,090 meters	1992
First Bosporus, Turkey	3,523 feet	1,074 meters	1973
George Washington Bridge, New York	3,500 feet	1,067 meters	1931

*The main span is the portion suspended between the two main cables.

ments. The original program was completed in 1995 with continuous touch-up on areas with the most severe erosion. Work is now starting on recoating the main cables.

FOG HORNS

The original Bridge fog horns, one at mid-span and one at the south pier, remained in use for nearly 50 years. Their deep, baritone sounds guided hundreds of thousands of vessels safely through the Gate, and forewarned San Franciscans when fog was rolling in to envelop The City.


Original aircraft beacon atop Bridge tower.

Unfortunately, in the late 1970s, the two-tone fog horn at mid-span stopped working. One of the horn's two air valves gave way and the two-tone horn became a one-tone horn. But since the mechanism was so old, replacement parts were impossible to find. The hobbled horn continued to sound its one-tone beacon until 1985, when both of the original horns showed signs of wear, tear, and exposure to the elements. The original fog horns were replaced by new horns manufactured by the Leslie Air Horn Company. The new horns, while differing in frequency or tone from one another, are all single-toned horns which operate, like the originals, with compressed air.

The fog horns operate, on average, two and a half hours a day. During March, you'll hear them for less than half an hour a day. But during the Bay Area's foggy season, July through October, they sound over five hours a day.

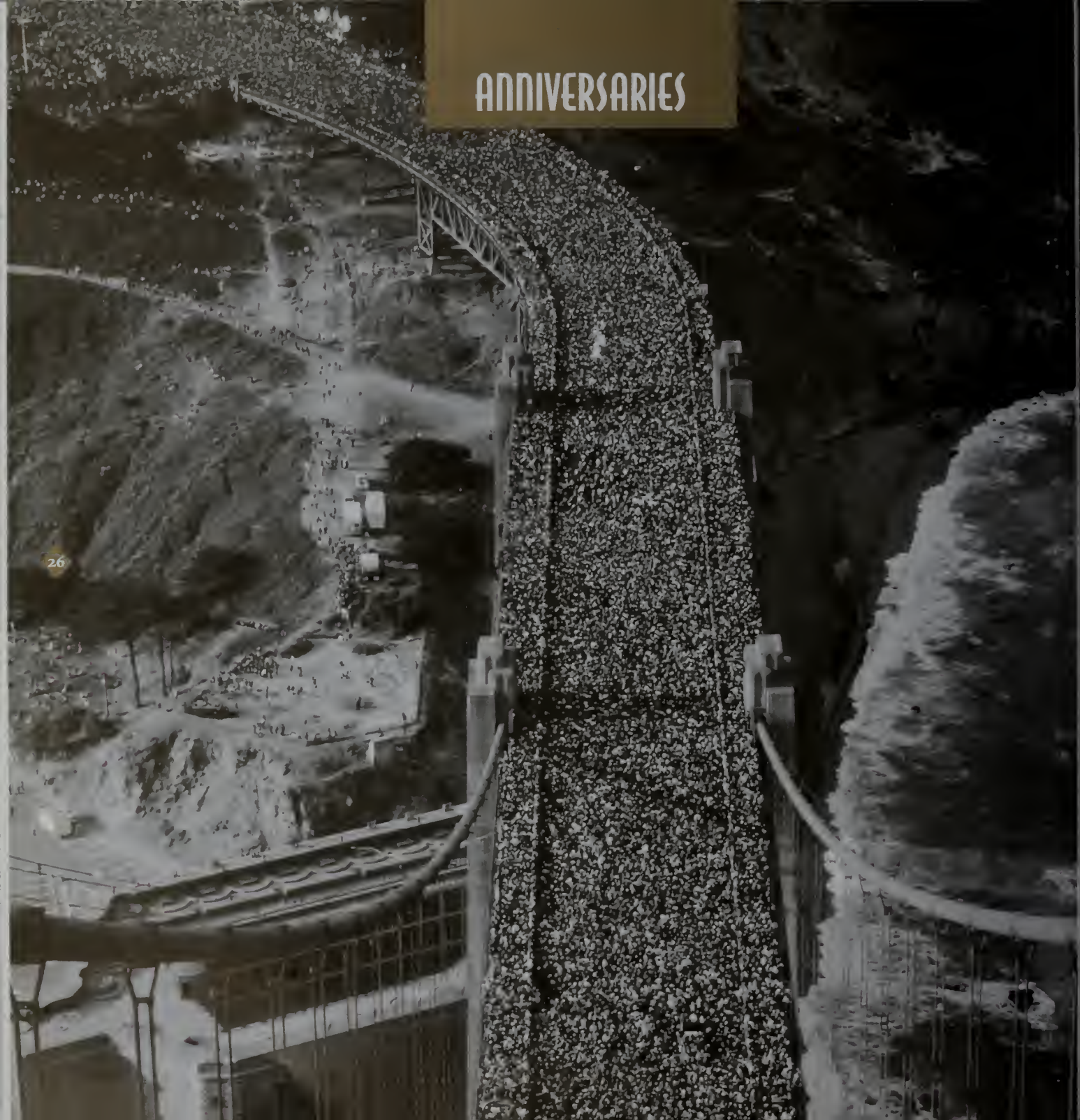

Suspender ropes receive their first coat of International Orange in 1937.

Small vessels that do not have radar still use the Bridge fog horns as guides when visibility in the Golden Gate Strait is low. Each horn has a different pitch and marine navigational charts give the frequency, or signature, of each fog horn. Vessel operators heading into the Bay steer left of the south pier horn and right of the mid-span horn. Outbound vessels stay to the right of the mid-span horn.

BEACONS

The Bridge is also equipped with navigational and warning lights for travellers by sea and by air. Originally, a red rotating aircraft beacon shown on the top of each tower. In 1980, they were replaced with 360 degree flashing red beacons. The Bridge main cables are also marked with red cable outline lights. In 1982, they were replaced with new and more efficient lights. For seafaring vessels, there are red navigation lights on the south pier fender and white and green lights below the deck at mid-span.

ANNIVERSARIES



The dream of spanning the Golden Gate Strait had been around for well over a century before the Golden Gate Bridge opened to traffic on May 28, 1937. On Sunday, May 24, 1987, this "dream come true" was celebrated as the Golden Gate Bridge turned fifty. With great fanfare, people from all over the world came to pay homage to the Bridge, become part of a historical celebration and create lifelong memories.

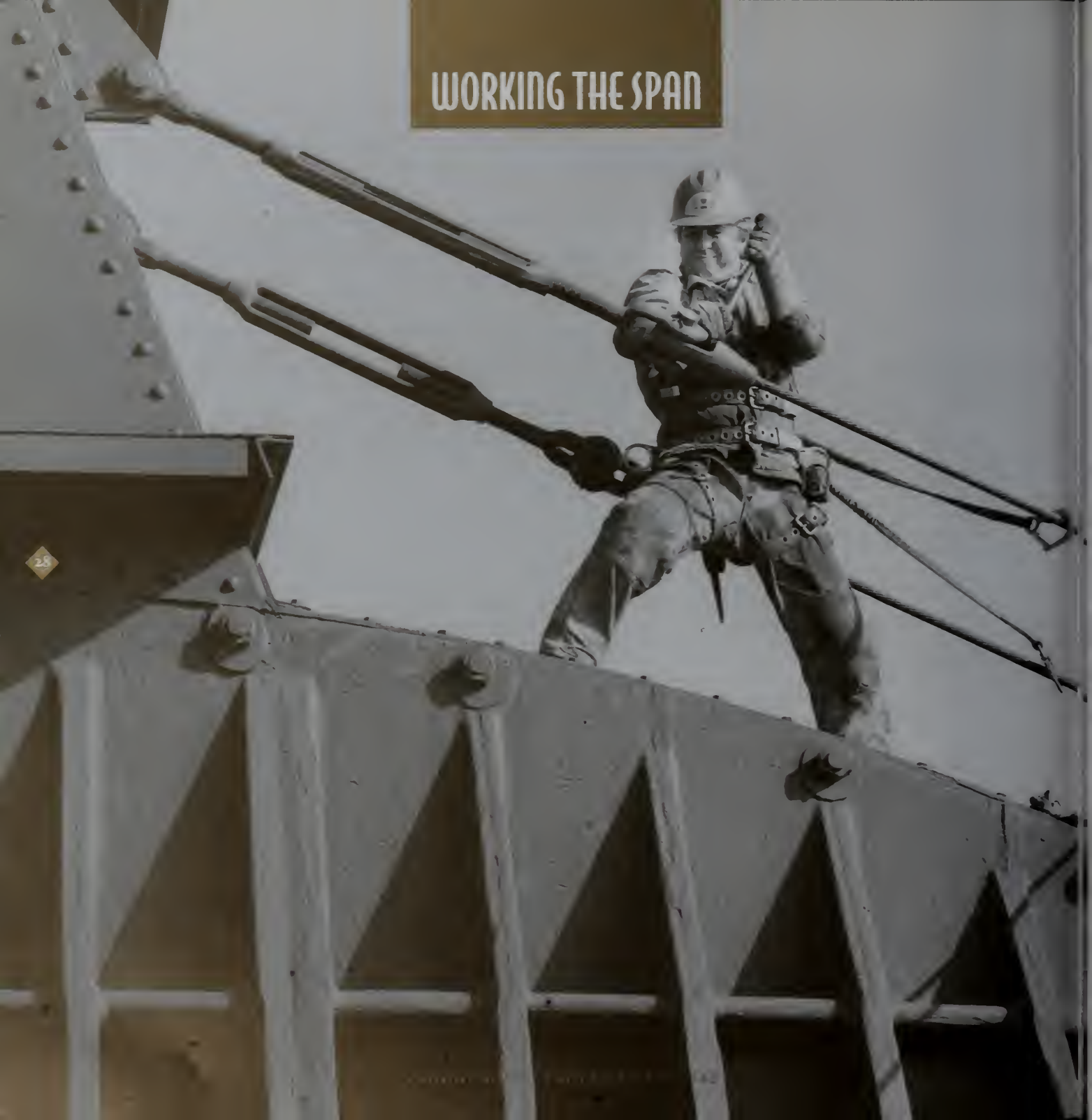
The day began as "Bridgewalk '87" reenacted "Pedestrian Day '37" and nearly 300,000 people surged onto the roadway. By 11:00 a.m. the Bridge was cleared for a commemorative vintage automobile motorcade. As a token of appreciation to the thousands of motorists who use the Bridge each day, the Board of Directors suspended toll collection for the day.

Afternoon and evening festivities continued on San Francisco's Marina Green and Crissy Field, scene of a star-studded evening concert. The celebration ended with a stunning fireworks display featuring a brilliant "waterfall" that showered from the Bridge to the Bay below—a fitting and spectacular finale to an unforgettable day.

May 27, 1997 marked the 60th Anniversary of the Golden Gate Bridge. The occasion was celebrated with a month long on-line celebration sponsored by Panasonic Interactive Media. The world was able to virtually explore the famed landmark at a temporary web site at . The San Francisco Giants declared May 24, 1997 Golden Gate Bridge Day at 3COM Park at Candlestick Point, making it a special day for fans of both the Golden Gate Bridge and the San Francisco Giants, two San Francisco traditions. The 60th Anniversary was also heralded on the Discovery Channel with the premiere of a new documentary, *The Golden Gate Bridge*. To mark the occasion in print, a new book *The Bridge: A Celebration* was released by James W. Schock.

Left: 50th Anniversary celebration, 1987. Top: Original Pedestrian Day ticket. Above: Pedestrian Day, May 27, 1937.

WORKING THE SPAN



The Golden Gate Bridge, Highway and Transportation District is comprised of three operating divisions and one administrative division. It is the Bridge Division employees that operate and maintain the Golden Gate Bridge under the direction of the Bridge Division Manager. The Bridge Division captures the true meaning of the words "team effort," with all of the skilled crafts and trades working together to accomplish the job at hand. The following unions and organizations represent Bridge Division workers:

- Transport Workers Union of America, AFL-CIO, Local 250 (Bridge Officers)
- Bay Counties District Council of Carpenters, Local 222
- Cement Masons Union, Local 580 of the International Association of Operative Plasters and Cement Masons
- Local 377 of the International Association of Bridge, Structural, Ornamental, Reinforced Iron Workers, Riggers and Machinery Movers
- International Brotherhood of Electrical Workers, Local 6
- Laborers' International Union of North America, AFL-CIO, Local 291
- Automotive Machinists, Local 1305 of the International Association of Machinists and Aerospace Workers and Machinists (Bridge Mechanics)
- International Union of Operating Engineers, AFL-CIO, Local 3
- International Brotherhood of Painters and Allied Trades, AFL-CIO, Local 4
- United Association of Journeymen & Apprentices of the Plumbing & Pipe Fitting Industry, Local 38

TOLL OPERATIONS

The Bridge Captain oversees the activities of the Toll Office coordinating an around-the-clock work force to ensure the smooth flow of traffic. Bridge Sergeants and Lieutenants respond to all inquiries, accidents and emergencies. Two babies have been born at the toll plaza to date.

Bridge Officers accept and record all toll monies. With approximately 540 vehicles passing through each toll lane in

Currently, an average of 58,000 vehicles per day pass through the toll lanes.

Tow Service trucks are on site 24-hours a day.

a typical commute hour, these Officers must be sharp. They are well known for both their friendliness and accuracy. With the addition of Electronic Toll Collection (ETC) in 1999/2000, Bridge Officers will still be required to collect tolls manually as not all lanes will be designated for ETC (see page 34 for more on ETC).

Laneworkers ensure the reversible lanes (see page 33 for more on reversible lanes) are in the proper configuration before each morning and afternoon commute period begins. They also respond to any emergency lane change requirements that may arise.

Bridge Service Operators assist disabled vehicles on the Bridge and its approaches. Tow service trucks are on site 24-hours a day ready to respond to any emergency.

BRIDGE MAINTENANCE

A revered and rugged group of Ironworkers and Painters battle wind, sea air and fog, often suspended high above the Gate, to repair corroding steel. Ironworkers replace corroding steel and rivets, make small fabrications for use on the Bridge, and assist Painters with their rigging. Ironworkers also remove plates and bars to provide access for Painters to the interiors of the columns and chords that make up the Bridge. Painters prepare all Bridge surfaces and repaint all corroded areas.

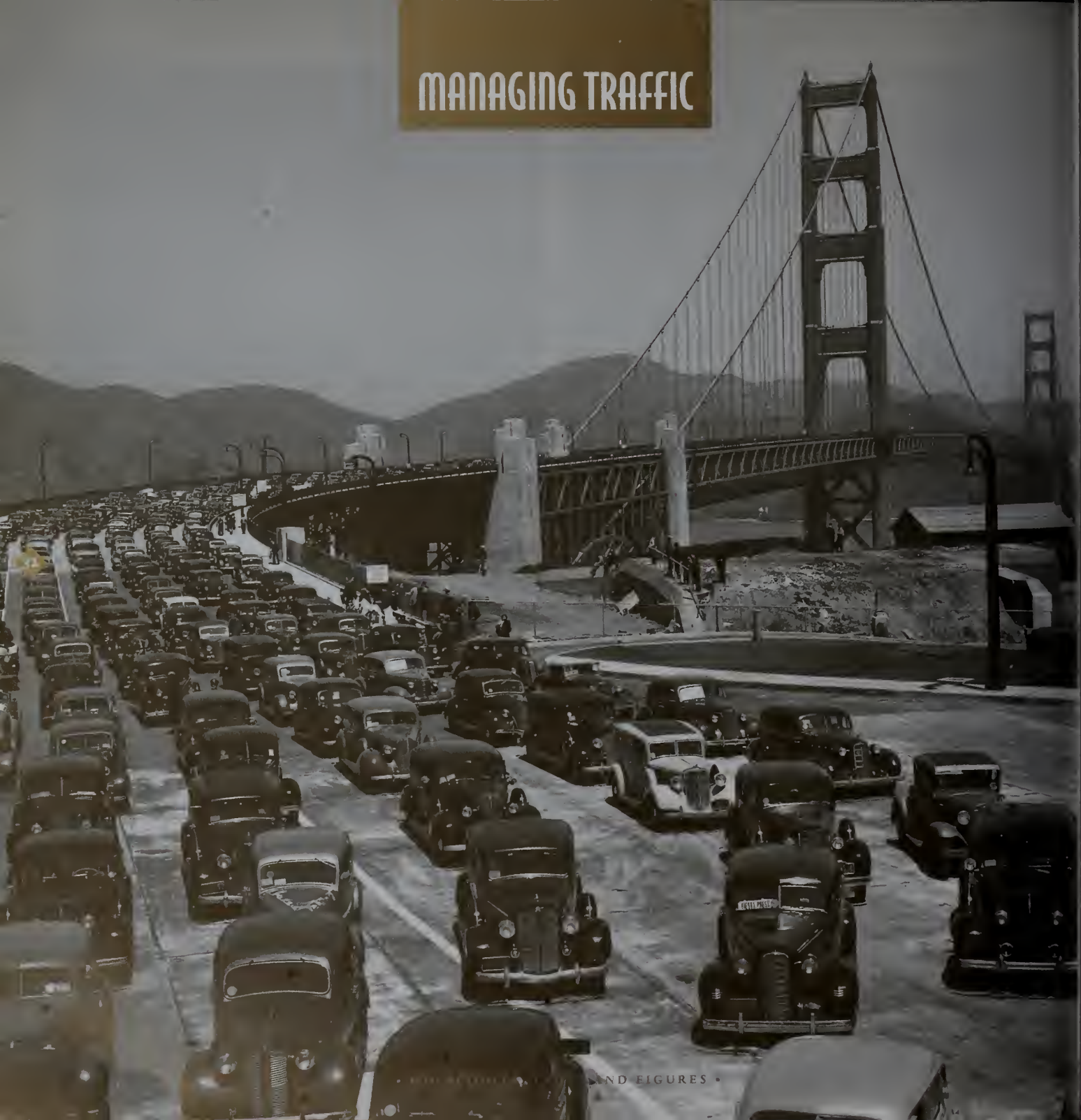
Gardeners maintain the glorious gardens which accent the Bridge.

Laborers and cement masons placing concrete in East Parking Lot.

Operating Engineers and Mechanics ensure that all equipment and vehicles are in good repair. Electricians maintain toll equipment and all electrical components on the Bridge. They also operate the fog horns. Communication Technicians ensure that radio communications are always operational. The Streets and Grounds team consisting of Gardeners, Laborers, Cement Masons and a Carpenter keep the surrounding areas of the Golden Gate Bridge in proper repair and attractive for the over nine million visitors each year.

Painting atop the 746-foot tall south tower.

MANAGING TRAFFIC



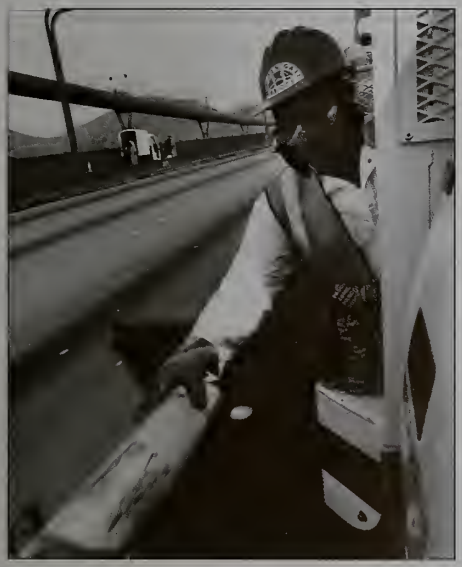
Over the years, the Bay Area has come to depend upon the Golden Gate Bridge as a vital transportation link between San Francisco and the counties to the north. As a fixed, six-lane roadway, the Bridge cannot be as easily expanded to accommodate traffic growth as are other highways. As a result, the Bridge has been the scene of a number of nationally recognized and innovative procedures designed to improve the flow of traffic.

◆ Reversible lanes were inaugurated on the Bridge on October 29, 1963. Their use greatly aids the flow of traffic during the heavy morning and evening commute hours and during weekend tourist periods. The Bridge has a total of six lanes. At any given time the number of lanes northbound or southbound may be adjusted. Bright yellow lane markers are manually placed in "sockets" in the Bridge roadway to clearly identify the San Francisco outbound lanes (northbound) and San Francisco inbound lanes (southbound). During the morning commute there are four lanes of traffic southbound to San Francisco and two lanes northbound to Marin. During the afternoon commute there are four lanes northbound to Marin and two lanes southbound to San Francisco.

◆ In October 19, 1968, the Golden Gate Bridge became the first major bridge in the world to offer one-way toll collection. The system proved so successful it has since been instituted on many bridges throughout the world.

◆ In recognition of the advantages of ridesharing, the District has taken an active role in encouraging carpooling and vanpooling. In April 1976, the District initiated toll free passage on the Golden Gate Bridge for vehicles with three or more occupants during peak weekday commute traffic hours: 5:00-9:00 a.m. and 4:00-6:00 p.m. The morning carpool hours benefit those traveling into San Francisco, while afternoon hours benefit those returning to San Francisco.

◆ Since 1970, when operation of Golden Gate Transit bus and ferry systems began, the District has faithfully pursued the mission of reducing automobile traffic, and contributing



Left: Opening day, May 28, 1937. Above: Lane markers are manually placed to identify lanes. Right: Laneworkers ensure lanes are in the proper configuration before each commute.

to the protection of the environment by providing efficient, reliable and cost-effective alternatives to the private automobile. As a result, traffic growth in the Golden Gate Corridor has been held to a manageable level. Prior to Golden Gate Transit bus and ferry services, approximately 30,000 people in 20,000 vehicles crossed the Bridge during each morning commute. At the close of 1998, over 35,000 people crossed the Bridge each morning, while vehicle numbers had grown to only 20,900.

ELECTRONIC TOLL COLLECTION

In 1972, the District began to pioneer the development of Electronic Toll Collection (ETC) systems aimed at increasing traffic flow by reducing toll transaction time. ETC systems utilize an electronic device mounted on the vehicle which sends a signal to a computer in the toll booth. The toll is then deducted from an account maintained by the motorist.

Working closely with the International Bridge, Tunnel and Turnpike Association, the District conducted extensive ETC research and development. By 1990, with ETC technology sufficiently advanced, the District had $1 million budgeted for ETC on the Golden Gate Bridge. However, before the ETC system could be purchased, in September 1990, California Senate Bill 1523 was passed requiring the California Department of Transportation (Caltrans) to prepare ETC specifications for all California bridges and toll roads, including the Golden Gate Bridge.

Caltrans is currently testing an ETC system for state-owned toll bridges on the Bay Area's Carquinez Bridge. Although the District had been waiting for successful completion of this work by Caltrans, in October 1998 the District awarded a contract for a new toll system designed to be compatible with ETC systems on other Caltrans toll facilities. The Golden Gate Bridge ETC system is planned for implementation at the end of 1999.

HIGHS AND LOWS

On Monday, January 4, 1982, a devastating rain storm struck the San Francisco Bay Area. Earth slides and flooding covered the highway and roads north of the Bridge. As a result, on January 5 and 6, there was very little vehicle traffic across the Bridge. On Wednesday, January 6, only 3,921 southbound vehicles crossed the Bridge. This compares to the average daily southbound count of 37,936 for January 1982.

During the evening commute on October 17, 1989, the Loma Prieta Earthquake jarred the Bay Area with a force measuring 7.1 on the Richter scale. The Golden Gate Bridge withstood, undamaged, the most devastating quake to strike the Bay Area since 1906. During this time of myriad traffic problems, extra bus and ferry trips were added to help smooth the commute as a flood of 30,000 to 40,000 drivers were diverted from the East Bay to Highway 101 and the Golden Gate Bridge due to the failure of the San Francisco/Oakland Bay Bridge. On October 27, 1989, an all-time record of 162,414 vehicles crossed the Bridge north and southbound.

TRAFFIC SAFETY

More than 41 million vehicles cross the Golden Gate Bridge annually. The District works closely with the California Highway Patrol (CHP) and other local law enforcement agencies to ensure a high standard of traffic safety. The speed limit was reduced from 55 mph to 45 mph on October 1, 1983, to reduce the potential for critical accidents. Further, since 1983, the CHP has provided increased traffic safety enforcement on the Bridge and its approaches. On September 13, 1996, the Bridge was designated a double-fine zone to aid in enforcement of the 45 mph speed limit. Since then, accidents on the span have been significantly reduced.

BRIDGE CLOSURES DUE TO WEATHER

The Golden Gate Bridge has been closed due to weather conditions only three times:

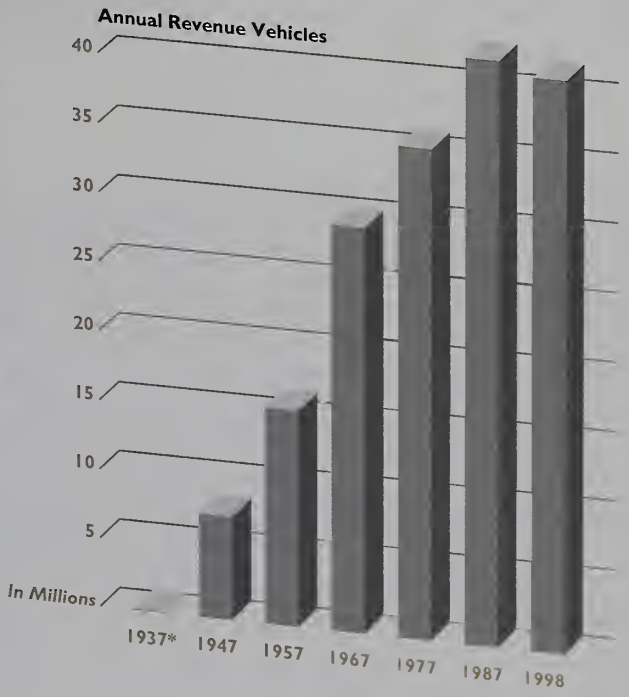
❶ As gusting winds reached 69 miles per hour on December 1, 1951, the Bridge was closed for only three hours. A team of engineers inspected the entire Bridge for damage and declared it structurally sound. They did, however, recommend that lateral bracing be installed. In 1954, the project was completed and the wind stability of the Bridge was increased by 35 percent.

❷ On December 23, 1982, high winds of up to 70 miles per hour closed the Bridge for almost two hours. The Bridge easily withstood the gusts.

❸ On December 3, 1983, once again high winds closed the Bridge for the longest period in its history, 3 hours and 27 minutes. Wind gusts reached 75 miles per hour, but again the Bridge suffered no structural damage.

The Bridge has been closed very briefly on separate occasions for visiting dignitaries President Franklin D. Roosevelt and President Charles de Gaulle of France. It has also been closed briefly in the middle of the night for construction activities.

TRAFFIC GROWTH



During the first full year of operation, 3.3 million vehicles crossed the Golden Gate Bridge. By 1967, annual crossings had grown over 750 percent to 28.3 million vehicles. Between 1937 and 1967, traffic grew at an annual rate of 7.4 percent.

After the introduction of Golden Gate Transit between 1970 and 1972, traffic growth on the Bridge slowed. In 1971, 32.7 million vehicles crossed the Bridge. By 1998, annual crossings had grown only 27 percent to 41.4 million.

** The Golden Gate Bridge was open to traffic for only two months during FY 1936-37.*

GOLDEN GATE BRIDGE TOLL HISTORY

The following is a chronology of Golden Gate Bridge Tolls from the opening of the Bridge to the present. Only tolls for two-axle passenger vehicles are listed.

May 23, 1937 50 cents each way, $1.00 round trip, with a 5 cent charge if more than three passengers;

July 1, 1950 40 cents each way;

February 1, 1955 30 cents each way;

October 1, 1955 25 cents each way;

October 19, 1968 50 cents southbound toll, free northbound;

March 1, 1974 75 cents southbound toll, free northbound;

November 1, 1977 $1.00 southbound toll, free northbound;

March 1, 1981 $1.25 southbound toll, free northbound;

December 1, 1981 $2.00 southbound toll on Fridays and Saturdays, $1.00 on all other days; free northbound;

January 1, 1989 $2.00 southbound toll seven days per week, with a thirty-eight percent discount available when purchasing a book of sixteen tickets for $20.00 (effective toll of $1.25); free northbound;

June 11, 1989 $2.00 southbound toll seven days per week with a seventeen percent discount discount available when purchasing a book of twelve tickets for $20.00 (effective toll $1.66); free northbound;

July 1, 1991 $3.00 southbound toll seven days per week, with a twenty-six percent discount available for ticket book purchasers (effective toll $2.22). A $20 book with 9 tickets and a $40 book with 18 tickets were sold; free northbound;

July 1, 1992 $3.00 southbound toll seven days per week, with a seventeen percent discount available for ticket book purchasers (effective toll $2.50). A $20 book with 8 tickets and a $40 book with 16 tickets are sold; Free northbound.

July 1, 1995 $3.00 southbound toll seven days per week, with an eleven percent discount available for ticket book purchasers (effective toll $2.67); free northbound.

Above: Toll plaza and District administration building, 1937. Right: Opening Day for vehicular traffic, May 28, 1937.

WHY IS THERE A $3.00 TOLL?

In December 1990, financial projections showed that the District's FY 1991/92 expenses would exceed revenues by approximately $14 million. These projections were the first to include the newly planned seismic retrofit of the historic Golden Gate Bridge. The need for increasing subsidies to support continued operation of the Golden Gate bus and ferry systems was the other key contributor to the projected deficit. Today, 50 percent of bus and ferry operations are funded by Bridge tolls, with another 30 percent coming from transit fares, and the remainder being met by federal and state subsidies.

While many Bay Area counties have enacted local sales taxes to support public transit, Marin and Sonoma counties have not. Further, the Golden Gate Bridge District does not have the authority to levy taxes. Therefore, the use of surplus Bridge toll revenue has been the only local means available to support financial shortfalls of the operation of the District's bus and ferry services.

Responding to the projected shortfall, the Board of Directors undertook a comprehensive public and agency review of more than 20 bridge toll and transit fare increase alternatives in early 1991. On May 31, 1991, the Board of Directors adopted a Five-Year Toll and Fare Program intended to ensure a balanced budget for District operations through FY 1995/96. The program called for a Bridge toll increase from $2.00 to $3.00 on July 1, 1991. It also offered a discount ticket book price of $2.22 per ticket initially, increasing to $2.50 on July 1, 1992, and to $2.67 on July 1, 1995. Additionally, it provided for a 10 percent increase in bus and ferry transit fares on July 1, 1992. An additional increase went into effect on September 1, 1993. Concurrent with the Five-Year Toll and Fare Program, all District operations were reviewed for means to reduce costs or increase revenues.

As of January 1, 1999, the $3.00 toll has afforded a balanced budget with no significant cuts in transit services and $43.5 million set aside for the seismic retrofit project. See page 16 for information on the seismic retrofit program.

BIRTH OF THE GOLDEN GATE TRANSIT SYSTEM

Just over 3.3 million vehicles crossed the Golden Gate Bridge during the first full year of operation. By 1967, annual crossings had grown over 750 percent to 28.3 million vehicles. Between 1937 and 1967, traffic grew at an annual average rate of 70 percent. The Bridge was close to reaching the saturation point and the public needed an alternative to the private automobile.

As the congestion mounted, several studies were undertaken to identify alternate means of travel between Marin County and San Francisco. The "San Francisco-Marin Crossings" report of May 1967 looked at the possibility of building another bridge. Marin County Transit District (MCTD) considered taking over the existing Greyhound system as a commute service to San Francisco. Greyhound provided transit between Marin and San Francisco at the time and it was so unprofitable, management wanted to abandon it. The District also considered adding a second deck to the Golden Gate for rapid transit or automobile traffic.

While these studies proceeded, the District was able to provide some relief to the traffic problem. In 1963, reversible lanes were inaugurated on the Bridge, greatly aiding the flow of traffic during the heavy peak periods. In 1968, the Golden Gate Bridge was the first in the world to offer one-way toll collection. The system proved so successful it has been instituted on many bridges throughout the world. Still, the traffic kept growing.

By the late 1960s, the Golden Gate Bridge was operating at capacity during the morning commute. Original Bridge construction bonds had almost been retired and the District had approximately $22.8 million in reserves. On November 10, 1969, the California State Legislature passed Assembly Bill 584 authorizing the District to develop a transportation facility plan for implementing a mass transportation program in the Golden Gate Corridor. This was to include any and all forms of transit, including ferry. At that time, the word "Transportation" was added to the District name to indicate its new commitment to public transportation.

The mandate from the legislature was clear: Reduce traffic congestion on the Golden Gate Bridge and in the 101 Corridor. The legislature did not give the District the authority to levy taxes, nor could Bridge tolls support local intracounty transit services. Only intercounty service could be subsidized by Bridge tolls.

On December 10, 1971, Assembly Bill 919 was passed requiring the District to develop a long range transportation program for the corridor. After an extensive public participation program including 21 public hearings in six counties, a unified system of buses and ferries emerged as the best means

THE LOGO

After expanding into the public transit arena, a logo was developed by Landor & Associates of San Francisco. The logo, developed in 1970, symbolizes and unites the three operating divisions - Bridge, Bus and Ferry - under one common theme. The District's 1970/71 Annual Report states, "The green in the logotype design suggests surface transportation over the green hills of the northern counties; the blue signifies the District's commitment to increasing ferry travel on the waters of the San Francisco Bay; the bright orange represents the famous span of the Golden Gate Bridge." The logo is displayed in color on the back cover.

Golden Gate Ferry, the *M.S. San Francisco*, departs Larkspur.

Golden Gate Bus Transit coach carrying commuters.

to serve the people of Marin and Sonoma counties. This system is commonly known today as Golden Gate Transit (GGT).

On August 15, 1970, the District took its first step into the transit business by inaugurating ferry service from Sausalito, California in southern Marin County to San Francisco. Bus service from Sonoma and Marin counties to San Francisco began on January 1, 1972. In 1976, a new ferry service was initiated between Larkspur, in central Marin County, and San Francisco with delivery of three 25-knot (28 and 3/4 MPH) high capacity vessels. The capital cost of the bus and ferry system was financed by a combination of federal grants from the Urban Mass Transportation Administration (now the Federal Transit Administration) and District reserves.

Since the birth of Golden Gate Transit, the bus and ferry system has become an integral part of life in the North Bay. Our services have adapted to the changing needs of growing communities, and also responded to the needs of individual patrons. Through its growth, Golden Gate Transit has continued to fulfill the mission of reducing automobile traffic and congestion while contributing to the protection of the environment with efficient, reliable and cost-effective alternatives to the private automobile. As a result, traffic growth in the Golden Gate Corridor has been held to a manageable level. Prior to Golden Gate Transit bus and ferry services, approximately 30,000 people in 20,000 vehicles crossed the Bridge during each morning commute. By the end of 1998, over 35,000 people crossed the Bridge each morning, but vehicle numbers had grown to only 20,900.

GOLDEN GATE FERRY

Crossing the San Francisco Bay by ferry dates back to 1850 when ferries operated between San Francisco and Oakland. In 1868, a group of San Francisco businessmen formed the Sausalito Land and Ferry Company to operate ferry service between Sausalito, in southern Marin County, and San Francisco. Prior to the opening of the Golden Gate Bridge, ferry service flourished. Then, following the opening of the Golden Gate Bridge in 1937, ferry service between Marin County and San Francisco declined and eventually came to an end on Friday, February 28, 1941. For the next 29 years, driving across the Golden Gate Bridge was the only way to travel directly between Marin County and San Francisco.

SAUSALITO FERRY

Ironically, the same District that contributed to the decline of the ferries was called upon to bring them back. Working from a 1969 study of water transit conducted by the counties of Marin and San Francisco, the District purchased the *M.V.* (Motor Vessel) *Point Loma* in June 1970. The twin-engine, diesel-powered ferry was built and operated as an excursion boat in San Diego, California. It could carry 575 passengers at a speed of 15 knots (17 MPH). The vessel was reconditioned and rechristened the *M.V. Golden Gate.* It began service on August 15, 1970.

Sausalito Ferry passes Golden Gate Bridge enroute to San Francisco.

LARKSPUR FERRY

Acting on a 1970 ferry transportation plan developed by Philip F. Spaulding and Associates, Seattle, Washington for the District, plans moved forward to add to the Golden Gate Ferry fleet with Larkspur as the Marin County main terminal. Between 1972 and 1976, the District constructed three additional ferry vessels, each capable of carrying 725 passengers.

Left: The *M.V. Golden Gate* approaches Sausalito. Above: *M.S. Marin* at the Larkspur Ferry Terminal.

◆ The first of the new ferries, the *G.T.* (Gas Turbine) *Marin,* went into service between Larkspur and San Francisco on December 11, 1976. At the same time, the new Larkspur Ferry Terminal was dedicated.

◆ The second vessel, the *G.T. Sonoma,* was added to the daily operating schedule on March 7, 1977.

◆ The third boat, the *G.T. San Francisco,* arrived September 12, 1977. Two ferries were kept in daily service with the third as an alternate.

By the first anniversary of the Larkspur Ferry service, over 1.1 million patrons had been served. The Urban Mass Transportation Administration (now the Federal Transit Administration) provided $27.3 million for the ferry project, which included not only the construction of the three vessels but the Larkspur and San Francisco ferry terminals. An additional $10.5 million necessary to fund the project came from District reserves.

On June 17, 1978, the San Francisco Ferry Terminal facility was dedicated. By 1980, a Golden Gate Transit Marketing Study indicated patrons wanted more ferry service. However, fuel prices were rising at an alarming rate. When the Larkspur vessels were designed, fuel sold for 11 cents a gallon. By the early 1980s, it sold for over $1.00. In order to provide more frequent service and lower maintenance costs, the Larkspur vessels were converted from a gas turbine water jet propulsion system to twin diesel engines and twin propellers.

In December of 1983, the first of the G.T. vessels was sent to San Diego for conversion to diesel power. By November 17, 1985, all three Larkspur ferries had returned and were rechristened with the designation M.S. (Motor Ship). With a speed of 20.5 knots, the ferries could still cross the Bay in times comparable to those driving across the Golden Gate Bridge. For the first time, all three vessels provided service between Larkspur and San Francisco. The commute, midday and weekend schedules were expanded. The following year, ridership increased over 34 percent. At the same time, fuel costs dropped 60 percent and maintenance costs were reduced $300,000.

On September 8, 1998, the most critical improvement to the Golden Gate Ferry system since its begining in 1970 was launched. On this day, Golden Gate Larkspur Ferry expanded services between San Francisco and Larkspur with the launch of a new high-speed catamaran, *M.V. Del Norte.* This significant milestone offered customers many new commute options, including more frequent trips, better departure times, and faster crossings.

The *M.V. Del Norte* is a 135-foot, 325-passenger, two-deck lightweight catamaran propelled by four Detroit Diesel engines, capable of cruising at 35 knots, up from current fleet speed of 20.5 knots. The speed of the high-speed cata-


The *M.V. Del Norte.*


Deckhand


Vessel Master


Operations Supervisor

maran reduces overall trip time between Larkspur and San Francisco from 45 minutes to 30 minutes. The addition of the *M.V. Del Norte* to the Larkspur Ferry fleet nearly doubled the number of daily round trips available to customers — to 40 trips per day up from 26 — including seven departures before 9:00 a.m. during peak weekday commute periods.

FERRY OPERATIONS

The Ferry Division employees work at terminals located in Larkspur and San Francisco. Under the direction of the Ferry Division Manager, they operate and maintain Golden Gate Ferry vessels and facilities. Employing Vessel Masters (Captains), Ticket Agents, Deckhands, Mechanics, Terminal Attendants, Storekeepers, in addition to supervisory and administrative personnel, the Ferry Division is headquartered in Larkspur.

Each weekday, Operations Supervisors, Vessel Masters and crew arrive at 5:00 a.m. to prepare ferries for the safety and comfort of patrons. The team effort begins in the vessel's power plant as operators conduct daily inspections of engines, generators, bilges, tanks and other key systems. Meanwhile, Deckhands replenish the water supply before double-checking the cleanliness of all passenger areas. As the sun rises, Vessel Masters in the pilot house receive updates on weather, tidal and traffic conditions as Ticket Agents and Supervisors begin greeting passengers. By 6:00 a.m., the Golden Gate Ferry has begun the first of many trips across San Francisco Bay. The round-the-clock activity continues back on shore with maintenance crews and administrative staff ensuring that all is running smoothly. Swing and grave shift crews work throughout the night inspecting, maintaining and repairing in preparation for another day's operation on the bay.

The following unions and organizations are a part of the Ferry Division team:

- Marine Engineers Beneficial Association, District #1 Licensed Division, National Maritime Union, AFL-CIO (Vessel Masters)

- Inlandboatmen's Union of the Pacific, ILWU, Marine Division, San Francisco Region (Deckhands, Ticket Agents, Terminal Attendants)
- Machinists Automotive Trade District 190 and Automotive Lodge 1305 (Ferry Mechanics)

VESSEL AND FACILITIES MAINTENANCE

Each of the five vessels in the Golden Gate fleet is the focus of a maintenance program to assure reliable and safe mechanical operation. In addition to daily and weekly inspections, each spring two ferries enter into dry dock for a rigorous top to bottom inspection and other modifications as required by the exacting standards of the United States Coast Guard.

The depths in the Larkspur Channel must be maintained by periodic dredging in order for ferries to be to able to reach the Larkspur Terminal. The 13,000-foot channel is dredged periodically to maintain a depth of 13 feet. Shoaling (the process whereby the channel progressively fills with silt over time) occurs at an average rate of a half-foot per year.

SERVING THE REGION DURING EMERGENCIES

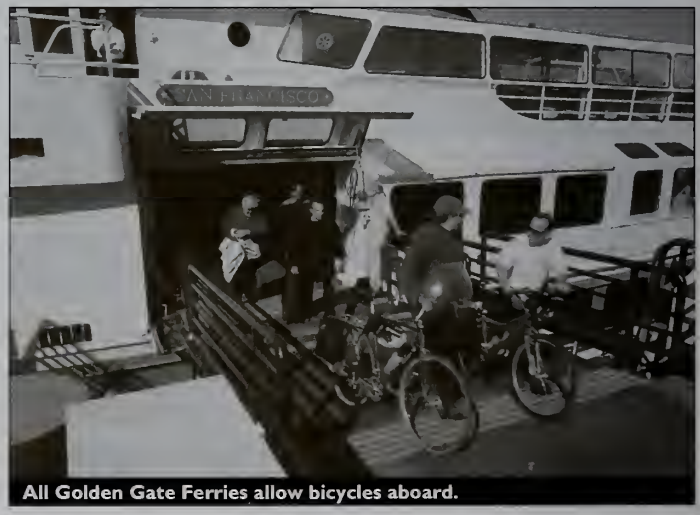
The ferries have played an important role during regional emergencies over the years. In January 1982, a massive rainstorm hit the North Bay. Residents, virtually cut off from San Francisco due to mudslides and flooding, relied upon Golden Gate Ferries to cross the Bay. After chartering additional vessels, over 12,000 passengers (more than six times the normal ridership) were carried on the Larkspur Ferry in one day alone. The Ferry Division was singled out for praise by the Legislature of the State of California for the role it played during the January disaster.

After the October, 1989 Loma Prieta Earthquake in Northern California, which closed the Oakland-San Francisco Bay Bridge, ferry ridership increased by as much as 80 percent during the three months following the quake.

SPECIAL EVENTS AND SERVICES

Bay to Breakers Ferry Service from Larkspur has been provided since 1992 for race participants. This annual event in San Francisco draws over 80,000 entrants. The starting line is within one block of the Golden Gate Ferry Terminal in San Francisco.

Lunch for the Office Bunch is another seasonal ferry promotion during the summer months. On successive Fridays, San Francisco's Financial District workers may enjoy their lunch aboard a Golden Gate Sausalito Ferry. Music and entertainment are provided during the round trip ride at the price of a one-way ticket. The Lunch Bunch program has been offered since 1984.


All Golden Gate Ferries allow bicycles aboard.

Since 1979, the Golden Gate Ferry Division has honored survivors of the 1906 earthquake and their guests with a special commemorative ferry ride each April 18th. In keeping with the spirit of emergency assistance that was offered by tugboats, fireboats, ferryboats and military vessels to the people of San Francisco after the great quake, the Golden Gate Ferry provides a backdrop for remembering the heroes, reminiscing and visiting with others who were on the scene.

GOLDEN GATE FERRY STATISTICS

(Fiscal Year 1997/98, ending June 30, 1998)

Average Weekday Patronage	*Sausalito*	1,579
	Larkspur	3,758
Average Weekend/Holiday Patronage	*Sausalito*	1,276
	Larkspur	1,041
Average Daily Commute Period Patronage	*Sausalito*	993
	Larkspur	3,063
Total FY 97/98 Patrons (Larkspur & Sausalito):	1,553,500	
Ferry Route Miles (one-way):		
Larkspur to San Francisco	11.25 nautical miles	
	13.01 statute miles	
Sausalito to San Francisco	5.5 nautical miles	
	6.33 statute miles	

Number of scheduled trips daily:

	Larkspur	*Sausalito*
Weekdays	40	18
(May to September)		20
Weekends/Holidays	10	12
(May to September)		14

All Golden Gate Ferries are wheelchair accessible.

All Golden Gate Ferries allow bicycles aboard.

Each vessel is drydocked every 24 months.

Combined, all Golden Gate Ferries consume 850,000 U.S. gallons of diesel fuel annually.

Golden Gate Ferry Service Reliability: In Fiscal Year 1997/98 Ferry Division completed 99.34 percent of scheduled trips traveling 139,542 miles on 13,899 trips.

Vessel Particulars

	Spauldings (Larkspur)	*Catamaran (Larkspur)*	*M.V. Golden Gate (Sausalito)*
Number of Ferries	3	1	1
Number of Decks	3	2	3
Passenger Capacity	725	325	575
Hull	Aluminum	Aluminum	Steel
Propellers	Two	*	Two
Service Speed (knots)	20.5	36	15
Length, overall	169'-1"	135'-4"	115'-7"
Beam, extreme	34'-3"	39'4"	30'-6"
Draft, loaded	6'-0"	5'	6'-6"
Displacement Loaded (Long Tons)	265	170	218
Gross Tonnage	99.89	99	97.92
Net Tonnage	56.59	67	38
Year Delivered	1976/1977	1998	1970
Fuel (Diesel)	#2	#2	#2
Fuel Capacity (U.S. Gallons)	10,375	3,400	4,600
Potable Water Capacity (U.S. Gallons)	1,668	600	750

* The new catamaran, *M.V. Del Norte*, is propelled by 4 Detroit Diesel engines driving 4 Bird Johnson waterjets.

GOLDEN GATE BUS

Driven by the post-World War II building boom in Marin and Sonoma counties, by the mid-1960s thousands of commuters were traveling by automobile across the Golden Gate Bridge to San Francisco. As air pollution increased and congestion took its toll on commuters traveling across the Golden Gate Bridge, San Francisco, Marin and Sonoma counties asked the District to implement a bus transit plan developed by Marin County Transit District (MCTD). The plan called for bus service from neighborhoods in Marin and Sonoma counties to the San Francisco Financial District and Civic Center areas.

The District purchased 112 45-passenger General Motors coaches specially designed to appeal to Marin and Sonoma's commuter market. Each air conditioned bus was equipped with highback reclining seats, overhead luggage racks and independent reading lights. Each coach was delivered with an environmental improvement package to ensure clean operation of the state-of-the-art equipment. Additionally, the District purchased 20 standard city-type buses to provide local service under contract to MCTD. The new coaches made Golden Gate Bus Transit the most modern and comfortable bus fleet in the nation.

The Urban Mass Transportation Administration funded $14.3 million of the $20 million required to purchase a bus fleet and construct bus maintenance and storage facilities in San Rafael, Novato and Santa Rosa. District reserves met the $5.7 million remaining balance.

Left: The C. Paul Bettini Transit Center, San Rafael.

BUS SERVICE BEGINS

◆ On December 15, 1970, Golden Gate Bus Transit began "Ferry Feeder Bus Service" between residential areas of Marin County and the Sausalito Ferry Terminal during commute hours. Five leased Greyhound buses and four drivers provided the service. Beginning in September 1971, newly purchased coaches served the Sausalito bus-to-ferry routes. In 1976, "Ferry Feeder Bus Service" expanded to the Larkspur Ferry Terminal. Further, on August 12, 1985 "Ferry Feeder Bus Service" began serving San Francisco employment centers and the San Francisco Ferry Terminal during commute hours. Today, 16 Ferry Feeder routes serve Golden Gate Ferry patrons.

◆ Bus Transit began operation of "Local Bus Service" within Marin County on December 15, 1971. Today, Bus Transit continues to provide this service under contract with MCTD. Under state law, the District is restricted from subsidizing intracounty transit service and therefore, Marin local service is subsidized by the County of Marin and California State Transportation Development Act (TDA) funds. MCTD is responsible for establishing the level of service and fares for these routes.

◆ "Basic Bus Service" across the Golden Gate Bridge began on January 1, 1972, with "Commute Bus Service" starting on January 3, 1972. Taking over the existing Greyhound service, within a month, Bus Transit carried an average of 5,500 passengers to and from San Francisco each day during commute periods. Previously, Greyhound had carried 3,500 passengers.

◆ Today, Commute Bus Service provides express commute period service, mornings and evenings, at frequent intervals, between San Francisco, Marin, Sonoma and Contra Costa

counties, Monday through Fridays (except holidays). Basic Bus Service provides daily service throughout the day and evening between San Francisco, Marin, Sonoma and Contra Costa counties. Buses operate at regular intervals of 15 to 60 minutes depending on the time of day.

Ferry Feeder buses meet commuters at the Larkspur Ferry Terminal.

◆ Golden Gate Intercounty Paratransit Service began November 1, 1993. Intercounty paratransit service is provided through an agreement with the Marin County Transit District by its paratransit contractor, WhistleStop Wheels. The service operates between Marin, San Francisco and Sonoma counties in accordance with the Americans with Disabilities Act of 1990. Paratransit service provides wheelchair-accessible van service for certified individuals who, due to disability, are unable to use Golden Gate Bus or Ferry Transit.

OTHER TYPES OF SERVICE

Weekend Recreational Bus Service is provided between east and west Marin County on Route 63, serving Stinson Beach, part of the Golden Gate National Recreation Area, and Route 65, serving Samuel P. Taylor State Park, the visitor center of Pt. Reyes National Seashore and the community of Pt. Reyes Station.

Holiday Shopper Shuttle Bus Service has been provided between the San Francisco Ferry Terminal and Union Square shopping area during the winter holiday season since November 1978.

San Francisco 49er Football Bus Service has been provided since 1982 for National Football League games at Candlestick Park located just south of San Francisco.

EXPANDING REGIONAL SERVICE

With communities growing throughout the service area, Golden Gate Bus Transit has accommodated patrons with two recent Basic Service additions. (Basic service is provided every day and evening between San Francisco, Marin, Sonoma and Contra Costa counties.) In November 1990, a new demonstration route, Route 90, serving Sonoma Valley, brought Golden Gate Bus Transit to the heart of the Wine Country. The service provides important links to Petaluma Transit and Sonoma County Transit. In March 1993, Golden Gate Bus Transit's service area expanded east with a new connection across the San Rafael/Richmond Bridge into Contra Costa County, the Route 40. This service provides an important regional link with BART, Alameda-Contra Costa

MARIN LOCAL SERVICE

Golden Gate Bus Transit provides Marin County local bus service under an agreement with Marin County Transit District (MCTD). MCTD sets the level of service and fares. Currently, Bus Transit operates 13 local routes within Marin County during non-commute hours. As the greatest demand for Bus Transit service occurs during peak morning and afternoon commute periods, Marin local service, which primarily occurs midday, can be provided by bus operators who are available between the peak commute hours. This arrangement permits cost-effective use of District resources.

Transit, Vallejo Transit, and Amtrak. Metropolitan Transportation Commission, the regional planning and funding oversight agency for Bay Area public transit operators, has allocated funding for the three-year demonstration service.

With shifting commute patterns, Golden Gate Bus Transit has also expanded its Commute Bus Service. In the mid 1980s, Caltrans conducted a study which showed that the primary contribution to congestion in the 101 Corridor could be attributed to commuters traveling between Sonoma and Marin counties, not to San Francisco.

Based on "journey to work" data collected during the 1980 census and research including an extensive outreach program to over 40 Marin County employers, new bus routes to carry Sonoma County commuters to Marin County workplaces were unveiled on November 5, 1990. The new Sonoma-Marin commute service expanded the District's mission to include not only transbay service to San Francisco, but commute service to other counties in the 101 Corridor as well.

The Whale Bus passes the C. Paul Bettini Transit Center

CLUB BUS SERVICE

Since February 1971, Bus Transit has contracted with private operators to provide "Club Bus" services within the Highway 101 Golden Gate Corridor. Currently, 10 "Club Buses" operate in areas that are considered uneconomical for conventional commute service. In 1991, the District began requiring all "Club Bus" services to be wheelchair accessible. Because most private sector bus operators do not have lift equipped buses, the District has made accessible buses available for lease to private "Club Bus" operators. The District subsidizes 30 percent of the program's administration and contract costs. The program has proven to be economical for both the District and club members.

C. PAUL BETTINI TRANSIT CENTER

As Bus Transit continued to grow through the late 70s and early 80s, it became clear that a main interchange terminal, or hub, was necessary for passenger transfers and connections. Such a hub would also improve the efficiency and cost-effectiveness of the bus system. On November 9, 1990, a ground breaking ceremony was held for the $3.7 million C. Paul Bettini Transit Center in San Rafael, California. On January 12, 1992, Bus Transit celebrated the grand opening of the Center and the 20 Year Anniversary of transbay bus service. The Center instantly proved to be a meaningful step towards better serving transit patrons by providing improved, more cost-effective operations. It provides a link between Golden Gate Bus Transit, Greyhound, paratransit providers, airport transportation and taxis and has become the focal point of bus transit services in central Marin County. It also provides safe and comfortable bus passenger facilities with covered loading platforms, rest rooms, food and beverage concessions and bicycles racks.

BUS OPERATIONS

Headquartered in San Rafael, California, the Bus Transit Division is the largest division in the District, employing just over 500 administrative, professional, managerial and skilled employees. Under the direction of the Bus Division Manager, this division safely and efficiently operates and maintains the bus fleet and associated facilities.

Bus Transit begins the day before sunrise as dispatchers arrive for work as early as 3:30 a.m. Bus operators report soon afterwards. Buses are dispatched from four locations in Santa Rosa, Novato, San Rafael and San Francisco.

Dispatch's first priority is to insure a driver and a coach are available for each of the over 1,100 bus trips scheduled each weekday according to the master plan laid out by the bus scheduling department. As bus doors open and operators welcome patrons aboard, dispatch ensures that all buses move in the safest, quickest and most cost-effective way possible. Throughout the day, information about road conditions, traffic and weather is broadcast to operators via the District radio system. If conditions require, road supervisors will determine the best bus re-routes in order to maintain schedules.

Bus maintenance crews work 24 hours a day, seven days a week to ensure that each bus is ready for service.

The following unions and organizations represent workers in the Bus Transit Division:

- Amalgamated Transit Union, Local 1575 (Bus Operators & Information Clerks)
- Machinists Automotive Trade District 190 and Automotive Lodge 1305 (Bus Mechanics)
- General Truck Drivers, Warehousemen & Helpers Union, Marin, Sonoma, Mendocino & Lake counties, Local 624 (Bus Servicers)

BUS & FERRY INFORMATION BY PHONE

Operators are standing by to answer questions about where to go and how to get there.

BUS OPERATOR TRAINING

Safety and Training Instructors provide training for all full-time and part-time Bus Operators. Bus Operators initially go through a rigorous eight-week training course before getting clearance to take to the road. During the first week, operators navigate various- sized coaches through an extensive obstacle course. Those who pass these tests spend the next four weeks in the classroom on defensive driving, American with Disabilities Act requirements, emergency procedures and passenger relations, to name just a few. And that's just in the morning. In the afternoon, from behind the wheel, aspiring drivers familiarize themselves with more than 60 routes and more than 1,200 bus stops. Finally, two weeks of "line training" or actual route driving occurs under close instructor supervision. All Bus Operators must also attend annual refresher training.

SAFETY FIRST

From June 1997 to November 1998, 360 full-time Bus Operators accumulated a total of 3,970 safe driving years. A safe driving year represents one driver year without an accident.

Under California Vehicle Code 1808.1, Bus Transit participates in a Driver Pull Notice Program which tracks the number of points each driver obtains for accidents or moving vio-

Automotive Painter refurbishes coach.

Vehicle Mechanic performs routine inspection.

lations in a three year period. Points range from 0 to 3 with 0 being the best rating. From June 1997 to November 1998, of a total of 375 drivers (including 15 part-time), 341 have the desired 0 points, 28 have 1 point, 4 have 2 points, and 2 have 3 points.

FULL SERVICE MAINTENANCE

Golden Gate Bus Transit has come a long way from its start in a rented warehouse and a muddy yard in 1971. Today's state-of-the-art central maintenance facility and bus yard in San Rafael is equipped for every phase of maintenance. The facility houses 14 repair bays, three service bays, one upholstery bay, five body and fender bays, two paint bays, and two wash racks. Two smaller facilities in Novato and Santa Rosa house Golden Gate Bus Transit maintenance shops with two service bays each.

The bus maintenance program assures safe, reliable and clean buses for passengers. Bus maintenance operates 24 hours a day, 365 days a year in order to keep the active fleet of 269 diesel buses in top shape. Three shifts share the responsibility of executing the top notch maintenance and repair program which includes everything from engine overhauls to paint, body and upholstery work. The day shift performs heavy maintenance, rebuild and electrical work. The swing shift performs minor inspections, brake work and repairs minor defects. The grave shift performs major inspections and ensures that enough coaches are ready for service each morning. The rigorous preventative maintenance program calls for various levels of inspection at 1,500, 3,000, 12,000, 24,000 and 96,000 miles. A computer system provides accurate, up-to-date mileage and data for every bus/component on a daily basis and triggers inspections.

The overall result is an average 24,360 miles between road calls for the fleet, one of the best records in the country. Bus Transit has earned numerous transit industry awards and the appreciation of patrons and the general public for clean, well-running coaches.

THE "WHALE BUS"

Celebrating and encouraging the use of public transportation, Bus Transit's "Whale Bus" is a standout in the fleet. Conceived by Bus Transit and world-renowned Sausalito environmental artist George Sumner, this 40-foot bus is the canvas for a life-sized portrait of wayward humpback whale "Humphrey" and his sea-faring dolphin friends. Mr. Sumner donated all the paint and material and over 70 hours of his time to create this beautiful achievement.

This special coach is the focal point of a marketing and public information campaign to encourage Marin and Sonoma residents to share in the environmental benefits of Golden Gate Bus Transit's "Pollution Solution." The Whale Bus has surfaced at various elementary schools throughout the service area and has helped educate school children on how to use the Golden Gate Bus and Ferry Transit system.

BIKES ON BUSES

In October 1993, GGT instituted its first bicycle program on Route 40 which connects Marin County with the East Bay via the Richmond-San Rafael Bridge. In May 1995, the program was expanded to allow a limit of two bicycles on select trips serving Routes 60, 70, and 80. In early 1999, GGT began installing external bicycle racks on its bus fleet. It is anticipated that all GGT buses will be equipped with bicycle racks by mid-1999, greatly expanding GGT's bicycles on buses program and replacing the limited programs mentioned above.

THE FLEET

Golden Gate Bus Transit carries over nine million passengers a year in coaches that are among the most comfortable in the nation. The original 132 General Motors "new look" buses purchased in 1971/1972 placed the fleet among the most modern and comfortable in the country, and it continues to be so today. The equipment caters to the long-haul Marin and Sonoma commuters. Many patrons find the accommodations so comfortable, they lie back and catch a wink or two.

In the early 1980's, GGT began its ongoing bus replacement program. Under the program, older buses are retired and replaced with new, high-capacity, "clean air" buses that accommodate persons in wheelchairs and seniors.

Golden Gate Transit Fleet History, 1971-1999

Delivery Year	*Coach*	*Seats*	*Quantity*	*Number in Fleet*
1971/72	GM "new look"	49	132	0
1982	GM Advanced Design	43	16	0
1983	GM Advanced Design	41	51	8
1986	Gillig	26	4	4
1987	MCI	45	21	12
1990	TMC	39	80	80
1991	TMC	40	63	63
1994	Flxible	45	40	40
1996/97	MCI	57	32	32
1998	Nova BUS	43	30	30
1999	Planned purchase of 14 MCI coaches.			

GM = General Motors; MCI = Motor Coach Industries;
TMC = Transportation Manufacturing Corporation

Above Left: The Whale Bus with artist (right) and friends. Above: Golden Gate Bus Transit's state-of-the-art central maintenance facility, San Rafael.

ANNUAL OPERATING STATISTICS

(Fiscal Year 1997/98, ending June 30, 1998)

Bus Trips Per Day by Type of Service

	Weekday	*Sat*	*Sun/Holiday*
Marin Local	250	87	67
Basic	368	240	233
Commute	406	0	0
Ferry Feeder	108	0	0
Recreational	0	17	17
Total	1,132	344	317

Total Number of Bus Trips	323,526
Annual Patronage	9,407,200
Average Weekday Patronage	32,245
Average Weekend Patronage	10,954
Average Weekday Peak Period (6 a.m.-10 a.m.)	13,260
Revenue Miles travelled by GGT coaches	7,727,505
Number of U.S. Gallons of Diesel Fuel Consumed	2.2 million

Number of GGT passengers traveling *between* the following counties:

Sonoma/Marin	345,915
Sonoma/San Francisco	870,279
Sonoma/East Bay	2,387
Marin/San Francisco	3,795,626
Marin/East Bay	165,155
SF/East Bay	105
Total Intercounty	5,179,467

Number of GGT passengers traveling *within* the following counties:

Sonoma	169,322
Marin	4,001,857
San Francisco	51,681
Contra Costa	4,844
Total Intracounty	4,227,704

Average distance a coach travels before requiring unscheduled maintenance: 31,874 miles

Size of active fleet/percent of fleet lift-equipped for accessibility:

FY 1981/82	279 / 0 percent
FY 1991/92	274 / 80 percent
FY 1994/95	268 / 98 percent
FY 1995/96	265 / 100 percent
FY 1997/98	269 / 100 percent

BUS TRANSIT SYSTEM STATISTICS

Total Active Lift-Equipped Coaches	269
Total Number of Seats	11,530
Average Number of Seats per Coach	42.9
Average Age of the Fleet	6.9 years
Average Miles Traveled per Coach (in fiscal year)	35,633
Length of Coaches: (feet) (except four Gilligs are 30 feet)	40 & 45
Width of Coaches: (except 4 Gilligs are 96 inches)	102 inches

Weight Ranges from 24,330 lbs. to 36,500 lbs. depending on the specific bus

Total Bus Stops	1,231	Number of Routes	62
Marin	833	Commute	22
Sonoma	253	Basic	9
San Francisco	132	Local	13
Contra Costa	13	Recreational	2
		Free Ferry Shuttles	16

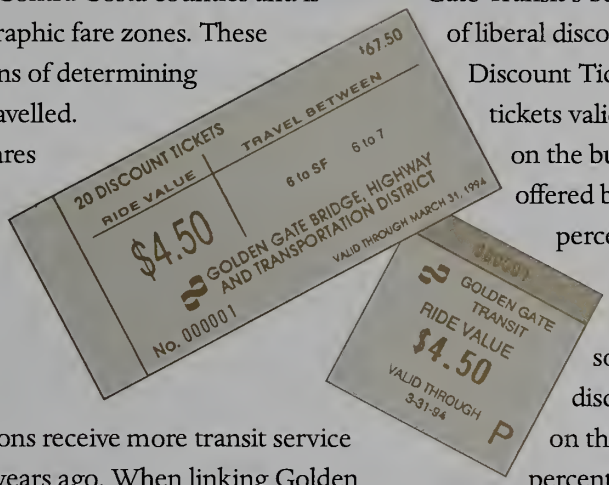
Service Area population and size (1990 U.S. Census data)

Counties	*Marin*	*Sonoma*	*San Francisco*	*Contra Costa*	*Total*
Sq. Miles	524.8	1,575.7	47.2	721.9	2,869.5
Population	230,096	388,222	723,959	803,732	2,146,009

TRANSIT FARES

CASH FARES

Golden Gate Transit's service area encompasses San Francisco, Marin, Sonoma and Contra Costa counties and is divided into 10 geographic fare zones. These zones provide a means of determining fares based upon distance travelled. Today, one-way adult cash fares range from $2.20 for travel between Sausalito (zone 2) and San Francisco (zone 1), to $5.30 for travel between Santa Rosa (zone 6) and San Francisco (zone 1).



Golden Gate Transit patrons receive more transit service for the dollar today than 20 years ago. When linking Golden Gate Transit fares to the Consumer Price Index, transit services actually cost patrons less today than in the past. For example, in 1979, the average adult cash fare for a trip from Sonoma County to San Francisco was $2.38. Today, the average cost for the same trip is $5.00. But, when expressed in 1979 dollars, it is only $2.11. That is 27 cents less than before!

DISCOUNT FARE PROGRAMS

Since 1982, regular users of Golden Gate Transit's bus and ferry system have taken advantage of liberal discounts off the adult cash fares. "Ride Value Discount Ticket Books" contain 20 discount transit tickets valid for intercounty (county to county) travel on the bus or ferry. A 10 percent discount was offered beginning in 1982, and was increased to 25 percent in January 1989, but was reduced to 20 percent on July 1, 1995.

Seniors (65 years and older) and persons with disabilities receive a 50 percent discount off the adult cash fare. Youth (6 to 18 on the bus, 6 to 12 on the ferry) receive a 25 percent discount. Children 5 or younger ride free when accompanied by an adult (limit 2 children per adult).

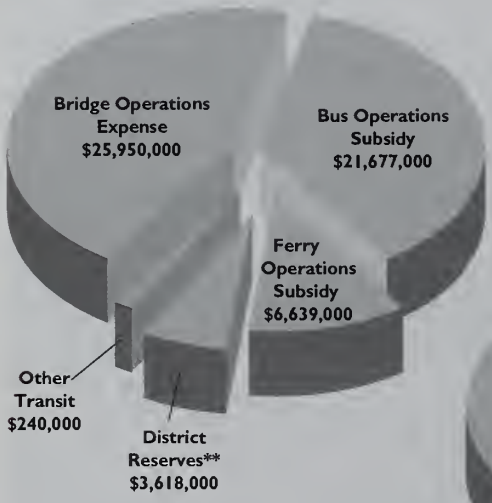
GGT coaches are equipped with electronic fare collection equipment.

TRANSIT FUNDING

While many Bay Area counties have enacted local sales taxes and/or property taxes to support public transit, Marin and Sonoma counties have not. Further, the Golden Gate Bridge District does not have the authority to levy taxes. Therefore, the use of surplus Bridge toll revenue is the only local source available to support financial shortfalls of Golden Gate Bus and Ferry Transit services. Fifty percent of bus and ferry operations are funded by Bridge tolls, with another 30 percent coming from transit fares, and the remainder being met by federal and state subsidies.

Where Do Bridge Tolls Go?

FY 97/98 Toll Revenue: $58,124,000*



Transit Funding

FY 97/98: $60,350,000

Operating Revenue Sources

FY 97/98 Total Revenue: $81,042,000

Where Do Bridge Tolls Go?

** Total revenue is $60,858,000 which includes $58,124,000 in toll revenue and $2,734,000 from Gift Center sales, viewing scopes, parking meters, commercial filming permits, etc.*

*** District Reserves fund projects including the seismic retrofit of the Golden Gate Bridge, District-wide capital projects, 1990 Americans with Disabilities Act requirements, the museum fund, etc.*

Transit Funding

** Local operating assistance includes Marin County General funds of $254,000 to provide local, intracounty bus service and subsidize expenses associated with the Northwestern Pacific Railroad right of way. State operating assistance includes $11,265,000 in Transportation Development Act Funds. Federal operating assistance includes $305,000 in operating and planning asistance.*

*** Transit revenue includes $18,232,000 in fares and $1,738,000 in rents, advertising and concessions.*

Operating Revenue Sources

** Total Bridge Operating Revenue includes $58,124,000 in toll revenue and $2,948,000 from Gift Center sales, viewing scopes, parking meters, commercial filming permits, etc.*

*** Total Bus Operating Revenue includes $14,380,000 in bus fare revenue, $1,375,000 in property rentals, and bus advertising.*

**** Ferry Operating Revenue includes $3,852,000 in ferry fare revenue and $300,000 in concessions, advertising, and property rental.*

DISTRICT DIVISION

The District is a very unique public employer as reflected in its gender, ethnic and workplace diversity. The three operating divisions, Bridge, Bus and Ferry, are supported by the District Division. The General Manager serves as the liaison overseeing the operations of all divisions and coordinates their activities pursuant to the policy direction of the District Board of Directors.

As of June 30, 1998, the District employed over 900 regular employees in 200 different job classifications. These classifications are wide ranging and include Engineers, Bridge Painters, Ironworkers, Computer Specialists, Bus Operators, Administrative Assistants, Buyers, Telephone Information Clerks, Transit Schedulers, Accountants, Mechanics, Planners, Laborers, Toll Collectors, Vessel Masters and Deckhands to name just a few.

WORK FORCE DIVERSITY

At the end of FY 1997/1998, the District employed 911 regular employees; 39 percent were minority, 25 percent were female.

The District Division supports the activities of the Bridge, Bus and Ferry operating divisions. The District Division includes the Auditor-Controller's Office (Accounting, Grants Administration, Payroll, Traffic and Data Processing), District Secretary's Office, District Services (Purchasing, Vault, Gift Center, Storekeeping, Mail and Reproduction), Engineering, Security, Planning and Policy Analysis, Human Resources, Environmental Health and Safety, Public Information, Marketing, Diversity Programs and Graphics.

The District Division works closely with all three operating divisions coordinating numerous programs. Engineering works with all divisions on a wide range of projects, most significantly, the seismic retrofit of the Bridge. Environmental, Health and Safety works with all three operating divisions to maintain regulatory compliance and to insure that the safest and healthiest working environment is provided. Marketing works closely with the Bus and Ferry Divisions in promoting their services. Public Information coordinates media relations for all divisions and prepares public transit information. Hiring is handled by the Human Resources Department, while District Services oversees a maze of purchasing, "housekeeping" and public service activities. Diversity Programs manages equal opportunity programs for employment and contracting activities.

BOARD OF DIRECTORS

There are 19 members comprising the Board of Directors. They represent the six counties which make up the District: San Francisco, Marin, Sonoma, Napa, Mendocino, and Del Norte. The Board of Directors are currently appointed as follows:

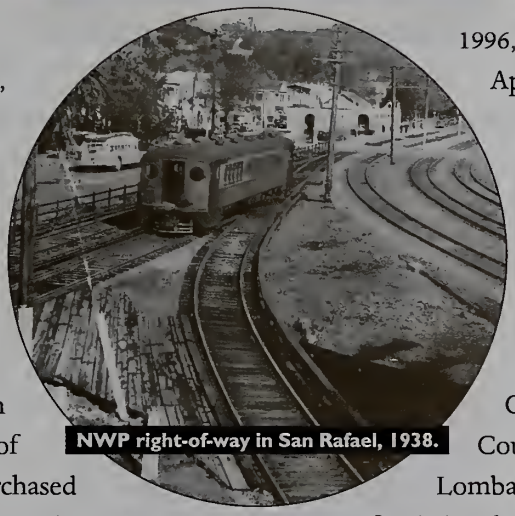
Nine members represent the City and County of San Francisco. One is appointed by the mayor, four are members of the San Francisco Board of Supervisors, and four are public members selected and appointed by the Board of Supervisors. Four members represent Marin County. Two are members of the Marin County Board of Supervisors, one is an at-large member appointed by the Board of Supervisors, and one is a member and nominee of the Council of Mayors and Council Members and is appointed by the Board of Supervisors. Sonoma County has three representatives: one a member of the Sonoma County Board of Supervisors, one a member and nominee of the Council of Mayors and Council Members as appointed by the Board of Supervisors, and the third a public member appointed by the Board of Supervisors. Napa, Mendocino and Del Norte each have one representative selected by their respective Boards of Supervisors.

The Directors serve on standing committees which meet regularly each month. The Board meets twice a month on the second and fourth Friday of each month at 10:00 a.m. in the Administration Building at the Toll Plaza in San Francisco. All Board and committee meetings are open to the public.

Directors are paid $50 per meeting day, up to a maximum of $5,000 in a year. The one exception is the President of the Board who, as an ex officio member of all committees, may be paid a maximum of $7,500 in one year.

NORTHWESTERN PACIFIC RAILROAD

In the 1960s, studies of the long range transportation needs in the Golden Gate Corridor identified sections of the Northwestern Pacific Railroad (NWP) right-of-way in Marin County desirable to preserve for future public transportation. Since 1982, the District, Marin and Sonoma counties and Marin County Transit District have coordinated efforts through a regional Task Force, formed as a forum for local government agencies, to purchase portions of the NWP right-of-way.



NWP right-of-way in San Rafael, 1938.

As part of three separate purchases in 1983, 1984 and 1990, a total of 13 miles of right-of- way in Marin County were purchased between Paradise Drive in Corte Madera and Route 37 in Novato. Two of the District's primary transit facilities, the Larkspur Ferry Terminal and the C. Paul Bettini San Rafael Transit Center, are located directly adjacent to this segment of right-of-way and may be linked to the transportation system ultimately developed to use the right-of-way.

Beginning in 1990 the NWP Task Force focused on obtaining federal and state grant monies for the remaining 139 miles of right-of-way from Novato in Marin County north to Willits in Mendocino County, as well as the section running east from Novato to Lombard in Napa County. Congressional authorization in 1993 provided $12 million to the District and culminated efforts at the federal level to finance the $27 million transaction.

It took two decades of steadfast commitment and effort by numerous local, state and federal policy makers to make it happen. In April 1996, the Board of Directors of Northwestern Pacific Railroad Authority (NWPRA) adopted the final resolutions needed to complete purchase of the right-of-way from Southern Pacific Transportation Company. The terms of the purchase agreement were signed on April 11, 1996, and the transaction was completed on April 29, 1996.

The purchase was deemed a truly historic moment for the future of transportation in the Redwood Empire as the purchase preserves the right-of-way for generations to come. The acquisition extends 115 miles from Route 37 in Novato (Marin County) north to Willits (Mendocino County) and 24 miles from Novato to Lombard (Napa County). The purchase was funded with federal grants totaling $25,650,000, plus $2,850,000 state funds.

Through NWPRA, public policy on future transportation uses of the right-of-way will be determined by the counties in which the right-of-way is located. Formed on June 7, 1995 and comprised of the District, Marin County, and the North Coast Railroad Authority (NCRA), NWPRA is the designated entity for holding title and preserving that portion of the right-of-way located between Novato and Healdsburg in Sonoma County and Novato to Lombard in Napa County. NCRA has been given the comparable responsibility for the adjoining section of right-of-way between Healdsburg and Willits. NCRA also operates common carrier freight service throughout the corridor. The Board of Directors of NWPRA is comprised of representatives of the three member parties: three members represent the Golden Gate Bridge, Highway and Transportation District, two members represent Marin County, and two members represent NCRA.

IMPLEMENTATION OF AMERICANS WITH DISABILITIES ACT

The Americans with Disabilities Act (ADA) of 1990 was signed into federal law on July 26, 1990, and prohibits discrimination against persons with disabilities in the areas of employment, public services including transportation, public accommodations, private services and telecommunications. The District is in compliance with many of the new standards developed in response to the law and begun to make modifications to its facilities, programs and services in order to assure full compliance with the law.

Since 1987, the District has worked to achieve 100 percent fleet accessibility by instituting a bus replacement program which replaces older buses with new accessible buses. Golden Gate Bus Transit services are 100 percent accessible. All four Golden Gate ferries are accessible.

Advisory Committee on Accessibility member examines wheelchair area on a front door lift coach, now on order as part of Golden Gate Bus Transit's replacement bus program.

ADA requires public transit operators to provide paratransit service to persons with disabilities who are unable to use accessible bus transit services. Golden Gate Transit is responsible for providing intercounty service between Marin, Sonoma and San Francisco counties, while Marin County Transit District (MCTD) and other local operators are responsible for services within Marin, San Francisco and Sonoma counties. In July 1992, the District adopted a Joint Paratransit Plan outlining the District's program for providing intercounty paratransit services. The District's intercounty paratransit service began November 1, 1993.

In July 1992, a Transition Plan evaluated the accessibility of District facilities and set forth necessary structural changes. In January 1993, the District completed a Self-Evaluation Plan to assess ADA compliance in all services, policies and practices. Most were found to be in substantial compliance.

The District's Advisory Committee is comprised of dedicated community members representing a range of disabilities and seniors. The committee has assisted the District in the successful development of the Joint Paratransit Plan, Self-Evaluation Plan, and Transition Plan. In addition, ACA participated in the development of several District publications: *Intercounty Paratransit Handbook* and *Welcome Aboard—Your Accessible Transit Services Handbook* (both available at www.goldengate.org). At the suggestion of the ACA, the District, in a unique public-private partnership, teamed with the Indoor Sports Club, San Rafael, California, a national advocacy group for persons with disabilities, to produce a 21-minute multi-purpose video explaining accessible features on GGT buses. The video, *Welcome Aboard, Bus Operators Guide to Assisting Persons with Disabilities,* effectively serves two different audiences. First, it serves as a training video for Bus Operators who serve persons with disabilities and seniors in our community. The video is tailor-made for GGT Bus Operator training, featuring GGT buses and accessible equipment. Second, the video familiarizes persons with disabilities and seniors with GGT's accessible features, equipment and procedures. Perhaps most importantly, the video allows both operators and persons with disabilities to develop a new understanding of one another and see accessible services from both sides of the lift. This makes for a smoother, more efficient service and a better understanding of what is involved when a Bus Operator says, "Welcome aboard."

DISTRICT ADVISORY COMMITTEES

Over the years, citizen advisory committees have played an important role in forming District policies and services. In 1970, less than a year after Golden Gate Transit was formed, the District Board of Directors created the first Citizen's Advisory Panel. This panel provided review and advice to the District during the preparation of a long-range Transportation Facilities Plan. The panel was active through 1975.

In 1977, the District formed a Bicycle Advisory Committee to assist in improving the safety of bicycle operations on the Golden Gate Bridge. The committee was active through 1980.

In 1980, the District formed an Architectural Advisory Committee to provide advice on architectural decisions involved in District building projects. The committee actively assisted with the Toll Plaza Modernization Project during the 1980s.

In addition, the District works closely with three permanent patron committees: Advisory Committee on Accessibility (ACA), Bus Passenger Advisory Committee (BPAC), and Ferry Passenger Advisory Committee.

The District's ACA advises on issues pertaining to seniors and persons with disabilities. Organized in 1979, ACA meets monthly. ACA members attend meetings of the District Board and its committees to testify on relevant issues. In recent years, the committee has worked actively on implementing improvements in response to the regulations set forth in the Americans with Disabilities Act of 1990 and establishing the District's intercounty paratransit services.

In 1989, BPAC was formed to help the District maintain attractive and effective bus transit services. The committee is comprised of a wide range of bus passengers from throughout the service area.

The Ferry Passengers Advisory Committee was formed in 1980 to advise the District on Ferry Transit matters. The committee suggests ways to maintain and enhance the convenience, comfort and efficiency of ferry service.

Bus and ferry transit employees receive awards for exemplary service from the District's ACA.

DATES TO REMEMBER

NICATIONS REGARDING THIS SOUVENIR MAY BE ADDRESSED TO EL VISTA ART

1872 Earliest discussion of building a bridge across the Golden Gate Strait.

1916 James Wilken, newspaper editor of the *San Francisco Call Bulletin*, revives the notion of a bridge across the Golden Gate Strait.

1918 San Francisco Board of Supervisors resolves to conduct a bridge feasibility study.

June 28, 1921 Joseph B. Strauss submits preliminary sketches and a cost estimate of $27 million to San Francisco City Engineer Michael M. O'Shaughnessy. Estimates from other engineers range between $60 and $77 million.

January 13, 1923 Historic meeting between representatives from San Francisco and North Bay counties occurs forming the Association of Bridging the Gate. The association drafts legislation to establish the Golden Gate Bridge and Highway District to build the Bridge.

May 25, 1923 Through the efforts of the association, the State Legislature passes the Golden Gate Bridge and Highway District Act of California into law.

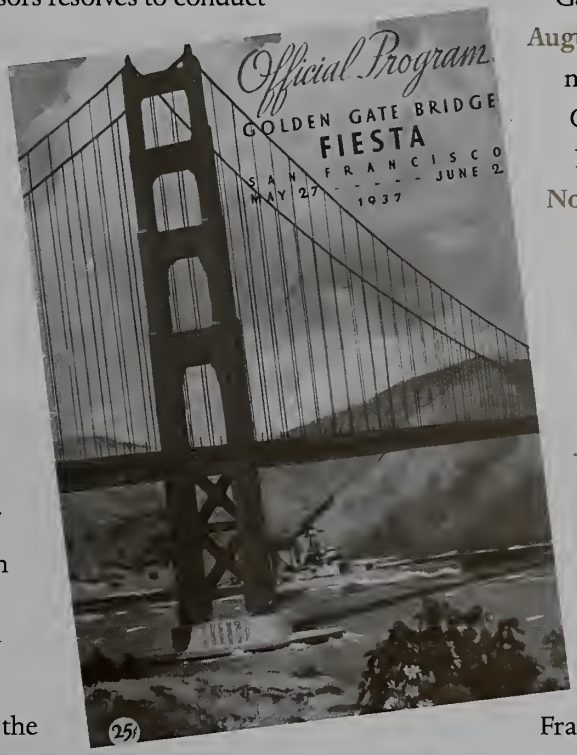
December 20, 1924 Secretary of War issues a provisional construction permit to build the Golden Gate Bridge.

December 4, 1928 Golden Gate Bridge and Highway District is incorporated as the entity to design, construct, and finance the Golden Gate Bridge. The District includes the counties of San Francisco, Marin, Sonoma, Del Norte, Mendocino and Napa.

January 23, 1929 Golden Gate Bridge and Highway District Board of Directors holds its first meeting in San Francisco.

August 15, 1929 Board of Directors appoints Joseph B. Strauss as Chief Engineer of the District.

August 11, 1930 The United States Department of War issues its final permit for the construction of the Golden Gate Bridge.



August 27, 1930 Joseph B. Strauss submits his final plans for the Golden Gate Bridge to the District Board of Directors.

November 4, 1930 Voters within the 6 counties of the District approve a $35 million bond issue to finance construction of the Golden Gate Bridge. The vote is 145,057 YES and 46,954 NO.

January 5, 1933 Construction of the Golden Gate Bridge begins.

May 27, 1937 Golden Gate Bridge opens to pedestrian traffic.

May 28, 1937 Golden Gate Bridge opens vehicular traffic at twelve o'clock noon when President Franklin D. Roosevelt pressed a telegraph key in the White House to announce the event to the world. The Bridge opened ahead of schedule and under budget.

December 1, 1951 Violent wind storm closes the Golden Gate Bridge from 5:55 p.m. to 8:45 p.m. The recorded peak winds occur at 5:55 p.m. and reach 69 miles per hour. Shortly after, the District studies the aerodynamic stability of the Bridge and installs a bottom lateral bracing system to improve the Bridge's response to wind. The torsional rigidity of the Bridge floor structure increases 35 times.

June 21, 1956 150 millionth vehicle crosses the Golden Gate Bridge.

1957 Series of earthquakes hit the San Francisco Bay Area. Some register as high as 5.5 on the Richter scale. There is no damage to the Bridge, but a few windows break at the Toll Plaza and in the administration building.

May 27, 1962 Golden Gate Bridge celebrates its 25th anniversary. A civic luncheon and a parade of antique cars highlights the day.

October 29, 1963 Reversible lanes are inaugurated on the Bridge, greatly aiding the flow of traffic during the heavy peak periods.

October 19, 1968 World's first one-way toll system begins with auto tolls free for northbound travellers and $.50 for southbound travellers.

November 10, 1969 In response to mounting traffic congestion on the Bridge, California Legislature directs the Golden Gate Bridge and Highway District to develop a mass transportation system for the Golden Gate Corridor. The word "Transportation" is added to the District's name.

June, 1970 District takes delivery of the *M.V.* (Motor Vessel) *Point Loma* after complete overhaul to ready her for service between Sausalito and San Francisco.

August 15, 1970 Sausalito Ferry Terminal is dedicated and the newly christened *M.V. Golden Gate* begins service to San Francisco.

December 15, 1970 "Ferry Feeder Bus Service" to the Sausalito Ferry begin service with leased Greyhound buses.

July 1, 1971 Remaining original bonds issued for the con-

struction of the Golden Gate Bridge are retired. $35 million in principal and nearly $39 million in interest have been financed entirely from Bridge tolls.

September 1971 General Motors delivers the first 20 of a total 132 new coaches.

December 15, 1971 Local intracounty bus service begins serving Marin County.

January 3, 1972 First Golden Gate Bus Transit transbay commute service begins with 132 buses.

January 31, 1975 Construction of Golden Gate Bus Transit's state of the art bus maintenance facility in San Rafael, California is complete.

April 1976 The District initiates toll free passage on the Golden Gate Bridge for vehicles with three or more occupants during peak commute traffic hours.

December 11, 1976 Larkspur Ferry Terminal is dedicated and the first of the new ferries, the *G.T.* (Gas Turbine) *Marin*, begins service to San Francisco.

March 7, 1977 Second vessel, the *G.T. Sonoma*, is added to Larkspur schedule.

September 1977 Third vessel, the *G.T. San Francisco*, is delivered. Two ferries are kept in daily service with the third as an alternate.

June 17, 1978 San Francisco Golden Gate Ferry Terminal dedicated.

March 1982 Sixteen new General Motors (GM) Advanced Designed coaches replace old buses. These new GMs can "kneel" at the front , are designed for use in the city and are the first with built-in wheelchair lifts.

October 1983 Speed limit on Golden Gate Bridge reduced from 55 mph to 45 mph.

December 1983 General Motors delivers 51 additional Advanced Design coaches.

December 1983 First of the G.T. Ferries travels to San Diego for conversion from gas turbine water jet propulsion to diesel engines and twin propellers. The conversion ultimately reduces fuel costs by 60 percent annually.

February 22, 1985 One billionth car crosses the Golden Gate Bridge.

November 17, 1985 G.T. Ferries have returned from engine conversion and are rechristened with the designation M.S. (Motor Ship). For the first time, all three vessels operate the schedule between San Francisco and Larkspur.

August 15, 1986 Construction is complete on the replacement of the original Golden Gate Bridge roadway with a modern orthotropic steel plate deck.

May 24, 1987 Golden Gate Bridge celebrates its 50th anniversary. Gift Center opens in the historic "Roundhouse" structure as part of 50th Anniversary Celebration. Open seven days a week, it provides a wide range of Bridge memorabilia and souvenirs.

July 1987 Bus Transit takes delivery of 21 new Motor Coach Industries buses with an innovative wheelchair lift and the capability of carrying 57 passengers.

January 1990 Bus Transit receives 80 new Transportation Manufacturing Corporation coaches each with a passenger lift and room to accommodate two wheelchairs.

November 9, 1990 Groundbreaking ceremony is held for the C. Paul Bettini San Rafael Transit Center. The Center is named in honor of former Mayor of San Rafael and member of the District Board of Directors since 1970.

March 3, 1991 Commute service between Marin and Sonoma counties begins to relieve congestion in the Highway 101 Corridor. To date, Golden Gate Bus Transit services had been focused on providing transbay services to relieve congestion on the Golden Gate Bridge and on the streets of San Francisco. Intercounty service is now in place to provide relief for traffic congestion in the Highway 101 Corridor.

September 1991 Bus Transit takes delivery of 63 new Transportation Manufacturing Corporation coaches each with

a passenger lift and room to accommodate one wheelchairs.

January 1, 1992 Bus Transit celebrates the 20th Anniversary of transbay basic bus service. Commute service started on January 3, 1972.

January 12, 1992 C. Paul Bettini San Rafael Transit Center opens serving Golden Gate Bus Transit, Greyhound, Marin Airporter, Santa Rosa Airporter, WhistleStop Wheels and area taxi services.

August 1992 Santa Rosa Bus Facility is dedicated as the Helen Putnam Transit Center, in honor of Helen Putnam. Putnam was known widely for her dedication to serving North Bay communities as the former Mayor of Petaluma and former member of the Sonoma County Board of Supervisors. She served on the District Board from 1979 until her death in 1984 when she was serving as First Vice President.

August 28, 1993 Contracts awarded for Golden Gate Bridge seismic retrofit final design work to Sverdrup Corporation of Walnut Creek, California and the team of T.Y. Lin International, San Francisco, California and Imbsen Associates, Inc., Sacramento, California.

March 7, 1993 Three-year demonstration bus service begins between Marin County and the East Bay funded by he Metropolitan Transportation Commission. This service provides a vital regional transit link across the San Rafael-Richmond Bridge.

November 1, 1993 Golden Gate Transit intercounty paratransit service begins.

January 28, 1994 Contractors complete replacement of the pedestrian railing on the Golden Gate Bridge.

September 1994 Bus Transit receives 45 new Flxible coaches featuring innovative front door wheelchair lifts and 45 passenger seats.

August 15, 1995 Ferry Transit celebrates 25 years of service.

June 7, 1995 The Northwestern Pacific Railroad Authority (NWPRA) was formed as the entity for holding title and preserving that portion of the Northwestern Pacific Railroad right-of-way located between Novato in Marin County and Healdsburg in Sonoma County and Novato to Lombard in Napa County. The North Coast Rail Authority has been given the comparable responsibility for the adjoining section between Healdsburg and Willits in Mendocino County.

April 29, 1996 Purchase of 139 miles of Northwestern Pacific Railroad right-of-way completed.

May 1996 GGBHTD enters cyberspace with the introduction of a web site at www.goldengate.org.

August 1996 Bus Transit launches new revenue program allowing display advertising on the sides of buses.

September 13, 1996 Golden Gate Bridge designated as a double-fine zone to aid in the enforcement of the posted 45 mile-per-hour speed limit.

December 1996 Bus Transit takes delivery of 30 MCI coaches. Two more MCI's arrived in December 1997.

January 1, 1997 Golden Gate Transit celebrates 25th Anniversary.

May 27, 1997 60th Anniversary of the Golden Gate Bridge.

June 2, 1997 U.S. Postal Service releases two postcards featuring the Golden Gate Bridge.

August 5, 1997 Groundbreaking ceremony begins the first phase of Golden Gate Bridge Seismic Retrofit construction.

February 1998 Bus Transit receives 30 Nova Bus coaches.

September 3, 1998 U.S. Postal Service releases 'Turn of the Century' series Golden Gate Bridge stamp.

September 8, 1998 A new high-speed catamaran ferry, *M.V. Del Norte*, is placed into service between Larkspur and San Francisco.

AWARDS, HONORS & RECOGNITIONS

1973 Bus Transit Maintenance Division received Fleet Owner Magazine's "Maintenance Efficiency Award" from 1973 through 1986, and the "Maintenance Management Achievement Award" for 1987. (Editor's Note: As employee achievement is no longer the focus of the awards program, the District is no longer participating.)

1974 Golden Gate Bus Transit received Fleet Owner Magazine's "Vehicle Design Award."

1976 California Highway Patrol and Golden Gate Bridge were awarded a Certificate of Appreciation from San Francisco Suicide Prevention, Inc. for contributing to life-saving efforts through outstanding public service.

1977 GGBHTD received the U.S. Department of Transportation Administrator's Award for Outstanding Public Service for displaying extraordinary initiative in advancing urban transportation in the public interest.

1980 Larkspur Ferry Terminal received the Award of Honor for Design Excellence from the Northern California Chapter of American Institute of Architects.

1980 GGBHTD received the U.S. Department of Transportation Reducer-1 Award for contributing to Energy Conservation through ridesharing.

1980 GGBHTD received the Presidential Energy Efficiency Award for operating transit services and actively promoting ridesharing. The District was the only public transit agency so honored.

1981 GGBHTD received the American Public Transit Association's (APTA) First Place AdWheel Competition Award for excellence in advertising.

1982 Larkspur Ferry Terminal received the Honor Award from the California Council of American Institute of Architects for design excellence.

1982 GGBHTD received a Special Letter of Recognition by the Metropolitan Transportation Commission (MTC) for actions and decisions that assisted in restoring transportation service disrupted by the severe rainstorms and flooding in Marin and Sonoma counties in January 1982.

1984 GGBHTD received the Institute of Transportation Engineers Transportation Achievement Award recognizing innovations in providing for the transportation needs of the North Bay.

1986 The National Council of the American Society of Civil Engineers and State Council of the American Society of Civil Engineers awarded the Outstanding Civil Engineering Achievement Award to GGBHTD and Ammann & Whitney for the Golden Gate Bridge Deck Replacement Program.

1986 GGBHTD and Ammann & Whitney received the Prize Bridge Award from the American Institute of Steel Construction Prize Bridge Competition, recognizing of outstanding design using structural steel for the Deck Replacement Program.

1986 GGBHTD and Ammann & Whitney received the James F. Lincoln Arc Welding Foundation Gold Award for the advancement of arc welded design, engineering and fabrication. This award is in recognition of the advances in welding technology that were developed and implemented during the Deck Replacement Program.

1987 California State Assembly recognized the Minority Affairs Committee of the Regional Transit Agencies, of which the District is a member, for outstanding contributions to the continued growth and success of all minority and woman-owned businesses.

1987 MTC presented the District's Ridesharing Coordinator with its Grand Award for design and implementation of North Bay ridesharing programs.

1989 GGBHTD received the Annual Award for Architectural Excellence from the Foundation for San Francisco Architectural Heritage for toll booth renovation.

1990 GGBHTD received the MTC Merit Award (with seven other Bay Area transportation operations) for earthquake response efforts after the 1989 Loma Prieta earthquake.

1990 GGBHTD received the Marin Waste Reduction Award from the Marin Solid Waste Management and Resource Recovery Association for exemplary effort to reduce solid waste requiring landfill disposal.

1991 The Disadvantaged Business Enterprise Officers of the Regional Transit Association of the Bay Area, of which the District is a member, received the Award for Excellence in Human Resource Management from the Urban Mass Transportation Administration of the U.S. Department of Transportation recognizing commitment and outstanding work in administering a "model" DBE Certification Program.

1991 GGBHTD and T.Y. Lin International received the 22nd Annual Engineering Excellence Award from the Consulting Engineers Association of California for the Golden Gate Bridge Transit Feasibility Study.

1992 C. Paul Bettini San Rafael Transit Center received the Ted Van Midde Memorial Master Award presented by the Northern California Concrete Association, Inc.

1993 Bus Transit's "Whale Bus" and "Pollution Solution" marketing campaign received the MTC's Merit Award for contributing to transportation improvement.

1993 GGBHTD was named to APTA's Silver Honor Roll for educating the public about the benefits of public transportation with its "Whale Bus" education program.

1993 GGBHTD received the Society of American Registered Architects Distinguished Building Award in recognition of enduring excellence in design. The Bridge is the first structure other than a building to receive the distinction since the society began presenting the awards in 1956.

1994 The Golden Gate Bridge was named one of "Seven Wonders of the Modern World" by the American Society of Civil Engineers along with the Hoover Dam, Interstate Highway System, Kennedy Space Center, Panama Canal, Trans-Alaska Pipeline and World Trade Center.

1994 Bus Transit earned a Tranny Award for excellence in transportation from the California Transit Foundation, specifically for the "Whale Bus" educational program.

1994 American Lung Association of San Francisco presented Golden Gate Bus Transit with a Clean Air Award in the education category for its 1993 Pollution Solution marketing and educational campaign.

1995 GGBHTD was named to APTA's Silver Honor Roll for educating the public about the benefits of public transportation.

1996 GGBHTD Board member Stephan C. Leonoudakis receives APTA's Local Distinguished Service Award.

1997 Bus Transit receives APTA's Certificate of Improvement in recognition of its improved safety record.

1997 GGBHTD received the San Francisco Convention and Visitor's Bureau Silver Cable Car Award in recognition of the 60th Anniversary of the Bridge.

1997 The District's Marketing Department took First Place in APTA's AdWheel Awards Competition for Advertising/Advocacy/Awareness.

1998 The District's Public Information Department received a first place award in APTA's AdWheel competition in the newsletter category.

1998 General Manager Carney J. Campion received the MTC Distinguished Service Award.

GLOSSARY OF TERMS

ADA Americans with Disabilities Act

APTA American Public Transit Association

ASCE American Society of Civil Engineers

BART San Francisco Bay Area Rapid Transit District. Operates a high speed commuter rail service from San Francisco east to Concord, and south to Daly City.

Basic Service Daily bus service between San Francisco, Marin, Sonoma and Contra Costa Counties.

Bay Area Region surrounding the San Francisco Bay including the counties of Alameda, Contra Costa, Marin, Napa, Solano, Sonoma, San Mateo, Santa Clara and San Francisco.

Caltrans California Department of Transportation

CHP California Highway Patrol

Commute Service Express bus service during commute periods between Sonoma, Marin and San Francisco counties, Monday through Friday except holidays. Morning routes operate southbound, evening routes operate northbound.

District Golden Gate Bridge, Highway and Transportation District

East Bay Term used to describe counties immediately east of San Francisco Bay including Alameda and Contra Costa counties.

ETC Electronic Toll Collection. A technology used to speed the rate at which vehicles may pay tolls.

Ferry Feeder Service Commute period bus service Monday through Friday except holidays, providing direct connections to ferry arrivals and departures at the Larkspur, Sausalito, Tiburon, and San Francisco Ferry Terminals.

FTA Federal Transit Administration

FY Fiscal Year. The accounting year that begins July 1 and ends June 30.

Golden Gate Mile-wide strait at the entrance to San Francisco Bay from the Pacific Ocean.

Golden Gate Corridor Extension of US Highway 101 from the Golden Gate Bridge north.

GGB Golden Gate Bridge

GGBHTD Golden Gate Bridge, Highway and Transportation District

GGT Golden Gate Transit. Generally refers to the bus and ferry system operated by the District, but is often used to describe the bus system in particular.

Highway 101 Corridor (see Golden Gate Corridor)

Intercounty Service Bus service between two counties.

Intracounty Service Bus service within one county.

Local Service Weekday and limited weekend bus service within Marin County.

MCTD Marin County Transit District

MTC Metropolitan Transportation Commission

North Bay The term generally used to describe counties immediately north of San Francisco Bay.

Paratransit Service Accessible "door-to-door" bus service for persons with disabilities who are unable to use fixed route accessible bus service.

Service Area The Golden Gate Transit service area currently extends south to the City and County of San Francisco, north through Marin and Sonoma counties, and east to Contra Costa County.

Transbay Relating to or involving crossing the San Francisco Bay either by ferry or over the Golden Gate Bridge.

UMTA Urban Mass Transportation Administration. Now known as the Federal Transit Administration or FTA.

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Crista Franke Photography, Oakland, CA: page 28, 29 (left), 34, 42, 43 (left and right), 47, 51 (left), 52, 53.
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Back cover map from *The Golden Gate Bridge, Report of the Chief Engineer*, 1937

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GOLDEN GATE BRIDGE, HIGHWAY
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